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THE UNIVERSITY OF ALBERTA

A DESCRIPTIVE SURVEY OF OUTDOOR EDUCATION PROGRAMS IN THE PROVINCE OF ALBERTA

by

© DONALD GEORGE RISDON

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE

OF MASTER OF EDUCATION

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THE UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled "A Descriptive Survey of Outdoor Education Programs in the Province of Alberta" submitted by Donald George Risdon in partial fulfilment of the requirements for the degree of Master of Education.

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Date ..Sept.17/1974.....

Abstract

Outdoor education programs are becoming an increasingly important adjunct to classroom instruction in Alberta. They are usually classroom or school-level phenomena, however, and little information concerning their design or administration has been communicated to interested persons outside of the school systems in which they operate. The useful information such programs could provide to teachers, those responsible for teacher education and in-service, and higher level educational authorities is therefore, not being taken advantage of. The purpose of this study was to compile such information by identifying and describing a number of well-established Alberta outdoor education programs.

The Alberta Department of Culture, Youth and Recreation assisted in identifying twelve school administrations in which established programs of outdoor education were operating. From these, thirty-two programs were ultimately chosen for study.

Study procedures involved questionnaires aimed at participating teachers, interviews of key program personnel and direct observation of outdoor projects. Interviews were also conducted with system-level personnel having responsibilities related to outdoor education. The decision was made, however, not to include this latter data in the final study report.

Data gathering instruments were formulated by the researcher. Criticisms offered by faculty of education members and an outdoor education authority, Doctor W. Boldt of the University of British Columbia, helped to refine these instruments as did pilot

administrations involving personnel from the Edmonton Public School System.

Research proceeded through personal visitation of programs and was carried out between April 31 and June 12, 1973. In addition to site visitations, thirty-two interviews were conducted and a high rate of return of questionnaires was obtained.

Outdoor education in programs surveyed related mostly to the curricular areas of science, physical education and social studies. Favored sites were those of a natural or semi-natural variety and most activity occurred in spring. Grade six was the pupil level most often referred to and program objectives generally centered around formal study objectives, environmental awareness, or those objectives related to personal growth of students.

Study teachers, (in spite of little training in outdoor education and usually modest teaching experience), were the school personnel most responsible for designing, arranging and carrying out programs. Curriculum and program planning, program financing, acquisition of sites and equipment, pupil transport and disruptive effects of outdoor education on other parts of the school program were areas requiring the most attention in program administration. Pupils, uninvolved teachers, parents and other members of the community were generally felt to be receptive to and supportive of outdoor education and most subjects were of the opinion that their programs were achieving desired goals.

Acknowledgements and Dedication

I wish to express sincere thanks to those whose contributions made possible the completion of this thesis. I wish especially to thank my patient and loving wife Linda, who gave moral support to my efforts and was a constant help throughout the preparation of this work. To my dear parents Nettie and George Risdom I am grateful for the encouragement and aid rendered me during my academic career and to my faculty advisor Doctor A. MacKay I express appreciation for invaluable guidance and assistance.

To those who facilitated my research and who participated in the pilot and final studies I extend my appreciation. Thanks also to Doctors D. Sawada and W. D. Smith for their constructive criticism and helpful comments during the thesis oral.

To all the hard-working and creative teachers who are pursuing outdoor education I dedicate this thesis, especially to Art Inscho who initiated my interest in this teaching approach.

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Chapter I

Statement of the Problem

Many educators feel that classroom instruction alone does not prepare students for the demands made upon them by an increasingly complex society. This belief is prompting a re-definition of the relationship between classroom happenings and the world beyond the school, and has resulted in tremendous growth of out-of-school learning.

Factors Prompting Decisions to Educate Out-Of-Doors

The Environmental Crisis

There is universal recognition of the fact that serious problems threaten man's environment. Expanding urbanization and its accompanying negative effects, the rapid depletion of resources, and reduced environmental quality as functions of our exploding technology have aroused widespread concern for the environment and the quality of life within it. Knowledgeable observors have made it clear that man must arrest the destructive forces in his environment or risk possible extinction. The widespread acquisition of knowledge, understanding and positive values concerning the environment are seen to precede the unified action which mankind must put forth to resolve this predicament. Public education is being accorded a clear mandate in this regard.

The 1972 Worth Commission Report on Educational Planning states the following imperative:

> In the face of rapid deterioration of earth's interlocked life-support systems, we will have to explore quickly and accurately all the probabilities for survival—both to sustain life and to give it meaning. Environmental education, therefore, must dominate our future horizon—if there is to be a future horizon (p. 192).

Barfield (1963) notes the efforts made by governments and communities to develop wholesome attitudes and habits with respect to environmental conservation. He goes on to suggest however, that to rely on such approaches as media campaigns to achieve these vital objectives is to leave their realization merely to chance. It is his belief that schools are the most natural and logical institutions to promote these goals. Concern for the environment and the anticipated role of the school in coming to grips with environmental problems is evident in the following recommendations presented in the 1972 Alberta School Trustee's Handbook:

> 27. The A.S.T.A. urges the Department of Education to develop curriculum studies of ecological and environmental problems and that studies related to the environment become an integral part of the ongoing instructional program at all grade levels.
>
> 28. The A.S.T.A. urges the Departments of Education and Environment to co-ordinate and co-operate on those activities involving environmental studies and curriculum development, and in promoting the education of children and adults on environmental conservation.
>
> 29. The A.S.T.A. urges the Department of Education to include ecological concepts at all grade levels and in all appropriate subjects (p. 21).

There is a growing tendancy for observors to regard outdoor education as a necessary adjunct to environmental study. Writing in the official journal of the Alberta School Trustees' Association, Nyland (1970) conceives of the meeting of environmental education objectives through the establishment of a network of nature centers

and outdoor classrooms. Wykoff (1967) asserts that with growing concern for the relationship between the classroom and the world beyond, it is essential for educational experience to extend outward from the classroom into areas where appropriate learning can take place more efficiently and more effectively. Ames (1969), Winter (1972), and Foshay (1970) contend that successful programs of environmental education involve using the environment as a medium for instruction rather than as a generalized object of study.

A fourteen nation U.N.E.S.C.O. conference held in the United States in 1970 explored the role of the school with respect to environmental education. This gathering resulted from collective concern for the environment on the part of the participating countries and among the recommendations contained within a concluding report were these:

> . . . environmental education be introduced as an obligatory and integrated component of the school educational system at all levels (p. 28).
>
> . . . appropriate educational nature reserves and natural study areas be made available for use by students and teachers in the process of environmental education (p. 29).

Man's Need for Meaningful Ties With the Land

Issues concerning the physical integrity of the environment are pressing and immediate because they threaten the basic life processes upon which all organisms depend. Due to the complexity of his nature however, man possesses affective needs (spiritual, creative, etc.), which transcend the purely physiological needs of others of his fellow creatures. Before the advent of an industrialized

society, individuals largely derived satisfaction of these needs through direct, continuous and meaningful interaction with the environment (Smith, Donaldson, Carlson & Masters, 1972; Gabrielson & Holtzer, 1965; Fersh, 1963). A vital component of this interaction was honest toil, which not only yielded a pride of accomplishment, but provided an outlet for creative urges and an avenue to continued physical fitness. At the same time, exposure to the beauty and tranquility of nature afforded man spiritual sustenance.

A direct, intimate relationship with the environment exists for fewer and fewer individuals in this age of increasing urbanization. In contrast to his agrarian forefathers, modern man finds himself harried by the frenetic pace of urban living, frustrated by the lack of creativity and occupational fulfillment inherent in meaningless "assembly line" modes of employment and physically unfit as the product of a spectator oriented society. These factors make it perhaps more vital than ever before for man to renew himself physically and spiritually through the resources afforded him by nature (Smith et al., 1972).

In the words of Goodale (1973):

> The abrasive sights, sounds and smells of a huckster society become hideous juxtaposed to the beauty and tranquility of the natural order.
>
> . . . The outdoors is a well of situations in which individual resourcefulness can be established and skills for managing anxiety and stress can be developed. Further by expanding concepts of time and space and by imposing its own enduring rhythms, the outdoors insistently states a different wisdom which, in contrast to the conventional pattern of artificial environments, exposes some of man's folly and daily inhumanity toward his fellow man (p. 5).

Though denied continuous access to the natural environment, today's citizen remains somewhat appreciative of the pleasures to be experienced therein as evidenced by the holiday and week-end behaviour of many North Americans (Mohr, 1972). Hammerman and Hammerman (1964) point out that with trends toward increasing leisure, the recreational potential of the out-of-doors is likely to increase in importance. It cannot automatically be assumed, however, that man will take wise advantage of new-found opportunities to renew his acquaintance with the land. The effective pursuit of leisure requires the development of attitudes and skills which will ensure creative and satisfying activity, as well as guaranteeing a measure of protection for the environment (Gabrielson and Holtzer, 1965). It can therefore be argued (as do the preceding authors), that education which results in the development of a repertoire of skills for effective use of the environment is as essential as education about the environment.

The Contemporary Educational Agenda

Factors influencing educational thought which have thus far been identified, have resided to a degree outside of the profession itself. Though doubtless not totally independent of the previous factors, attitudes and beliefs arising within education are having a complimentary effect to those of the environmental and recreational theorists. Views expressed by a number of contemporary educational leaders strongly question the ability of formal learning, as traditionally consistituted, to adequately prepare individuals for life in an increasingly complex society.

Tyler (1968) and Hawkins (1970) contend that schools frequently

fail because much of what children are taught lacks identifiable connections with what they experience in their own environment. They see as a potential solution to this problem learning activities which build upon the realities extant within the community. MacDonald (1966) expressed a similar concern for learner needs when he said:

> If we consider students to be persons, we promise them that what they do will be meaningful to them, provide the opportunity for them to develop personal meanings (knowledge) which will help structure their own meanings of themselves and the world (p. 33).

Obviously, education which relates learning to reality cannot overlook the problems of contemporary living. Today's student must be aware of these if he is to cope effectively with life in the future and develop the necessary incentives to contribute personally to the alleviation of these concerns. Wilhelms (1970) questions the ability of schools to adequately prepare students for an uncertain future if these institutions do not provide opportunities for such confrontation. To Wilhelms this means facing students directly with such problems as environmental deterioration and resources depletion among others. Foshay (1970) makes these observations:

> One of the consistent demands of the future is that schools be directly resonant with the world as it really is (p. 33).

> The time is almost at an end when we can treat the school as a special institution with its special little world that students enter each day and leave in mid-afternoon (p. 38).

Central to the views of Wilhelms and Foshay and others who support such a position is the notion of education as a process which teaches students how to learn. Havighurst (1968) contends that in view of the rapid expansion of knowledge and the inability of

educators to predict with certainty what citizens of a future society will require in terms of learning and skills, the best we can do is attempt to aid students in developing competencies for meeting new living demands as they arise.

The kinds of education which Foshay, Havighurst and Wilhelms would espouse, must contain an element of student dynamism. The traditional view of the student as a passive recipient of knowledge is not consistent with notions which view education in terms of personal becoming.

Havighurst does in fact, call for schools to provide latitude for learning which is pupil determined, instituted and maintained. Brameld (1970) asserts that students want and deserve the right to participate in the formulation of learning experiences that express their own time and their own concerns. Engler (1968) recognized the danger in terms of reduced student motivation to learn as a product of enforced passivity in the classroom. Whether or not one can accept the previous points of view, it is difficult to reject the notion that children can profit from learning experiences which occur beyond the bounds of the physical school. Obviously a child will learn more about a particular plant, for example, if he sees it within the context of its own environment. He will not only be appreciative of the relationship it bears to the other organisms of its surroundings, but he will incorporate more of its characteristics into his conception of the plant, because of the functioning of additional senses (taste, touch, smell), in the learning experience. Such classical educators as Pestalozzi, Froebel and Dewey recognized this fact. Goodlad (1969)

recently stated:

> A school is physically only a box. We should break free of this box mentally, for it is shameful how little we use the educational resources that surround us everywhere (p. 25).

Finally, there is an increasing tendency on the part of educators to emphasize instruction aimed at student value formation. These values, it is assumed, will lead to positive attitudes toward the inter-relatedness of man, his culture, and his biophysical surroundings (Worth, 1972). It is anticipated that holding such values will impel individuals to strive actively to improve the quality of living on a personal as well as societal level. This is the message conveyed by such educators as Hammerman and Hammerman (1974), Kirk (1968) and Smith (1969).

Concerning the role of education in shaping values and bringing students in contact with real issues, the Alberta Department of Education stated the following in a recent (1972) position paper:

> All around us the world is changing; indeed, the existence of change seems to be the most certain element in our experience. Students often feel the tremendous and discomforting impact of this change. They are living and preparing under increasingly severe environmental stress for a life of flux and a life of uncertainty. In a world of changing social values and changing roles for men and women, young people see life through a different window from that of their parents and teachers. They live in a climate of uncertainty, complexity and conflicting amorphous values. In an age bombarded by social, political, economical and technical barrage of change, students need more facilitating opportunities and experiences than ever before to fulfill themselves as persons. The world as we know it is faced with a diversity and complexity of problems which have never been experienced collectively before. No aspect of life and no individual can escape their pressure. These national and world-wide concerns place new and greater responsibilities on education. Schools must provide education for vastly increased numbers of people for a longer span of productive life and for a

> far higher level of understanding, competence and skill than in the past. Society has placed on education a greater than customary share of the responsibility for changing the present state of affairs and for creating a better tomorrow (p. 1).

Background to the Study

The fact that there is a felt need to involve students in educational activities taking place beyond the physical bounds of the school has been manifested in the actions of a number of groups within this province. Passmore (1972) points out that Alberta occupies a foremost position among Canadian provinces with respect to the development of outdoor education programs. Although it is difficult to estimate precisely the extent of such activity within Alberta, it has been suggested (Passmore, 1972) that participation in some form of outdoor learning may run as high as fifty percent, particularly at the elementary school level.

Provincial Government Participation in Outdoor Education

Recognizing the urgency of such measures, the Government of Alberta has actively encouraged outdoor education efforts. An Alberta Government Recreation Committee composed of senior officials representing nine provincial departments, has as its aim the coordination and improvement of government activities in the general area of recreation, including outdoor education (Proceedings of the Alberta Government Recreation Committee, Outdoor Education Conference, 1972). Among the actions of this committee have been attempts to coordinate the activities of government departments and other organizations, agencies and institutions whose functioning relates to outdoor education. A

1972 conference involving these interest groups, explored a number of measures necessary to vitalize and facilitate outdoor education throughout the province.

The Role of the Alberta Department of Culture, Youth and Recreation

Since 1969, the Alberta Department of Culture, Youth and Recreation has provided funding for school-based programs of outdoor education. More than a dozen school administrations have or are receiving monies under this scheme which over a three year period provides up to four thousand dollars for program establishment. Guidelines published by the Department of Culture, Youth and Recreation (1972) state the following objectives for this program of assistance:

1) To encourage school outdoor education programs
2) To provide supportive financial assistance for school jurisdictions attempting to establish self-supporting outdoor education programs.
3) To improve instruction and extension of school curriculums
4) To increase student and teacher knowledge and appreciation of our natural resources
5) To provide opportunities for enriched social experiences
6) To encourage practical outdoor living experiences
7) To develop increased appreciation and awareness of our natural environment.
8) To create a community attitude towards our natural environment (p. 2).

A 240 acre complex built and maintained by the Department of Culture, Youth and Recreation at Blue Lake Alberta, functions in the training of personnel to insure adequate leadership and availability of resource persons for outdoor education.

The Role of the Department of Education

The Alberta Department of Education has had little to say with

respect to the pursuit of outdoor education. In line with its desire to decentralize curricular and instructional decision making, the Department has been content to allow individual school administrations to formulate programs which best meet the needs of their own student populations. In its recent publication Goals of Education: A Position Statement the Department recognizes, however the fact that problems of the physical environment (i.e. pollution, overpopulation etc.) have important implications for the school. It further recognizes the need for public education to assist the student in "becoming more competent in searching for, assessing, developing and using means to improve society (p. 8)."

Changes to the Alberta School Act effective August 1, 1970 have important implications for outdoor education. Section thirteen of the Act was revised to permit local teachers and boards greater autonomy in the selection of instructional materials other than textbooks. Section 138 (c) of the School Act enables boards to:

> . . . arrange for, undertake or sponsor, for its pupils and at its own cost or otherwise, educational, cultural or recreational trips inside or outside its district or division (p. 52).

Need for the Study

With some exceptions, (notably the Calgary and Edmonton Public school systems which have received some attention in research and periodic literature), little is generally known about the pursuit of outdoor education in Alberta. Frequently it appears to be a "grass roots" phenomenon initiated and maintained by interested teachers.

Information concerning program objectives, design, administration and outcomes is seldom communicated to persons or agencies outside of a system in which a program is operating. Continued growth and expansion of outdoor education programs has, however, forced recognition of outdoor study as a significant development in Alberta education. The potential usefulness of a study at this time is illustrated by the following points:

1) Increasing amounts of teacher and pupil time as well as significant sums of money are being devoted to outdoor education. Investigating the nature and outcomes of established programs may aid in determining its usefulness and legitimacy as an educational tool.

2) Study findings may provide a basis for the formulation of a philosophy, set of objectives and guidelines which would be of use to program planners. It is likely that educational use of the environment will grow as teachers seek creative and meaningful ways of developing the curricular activities for which they are increasingly responsible.

3) Such a study could also shed light on the following areas of educational concern:

(a) What are the interests, background, training etc. of teachers who educate outside of the classroom?

(b) What facilities in the environment are seen to be of the most use as educational resources?

(c) In what ways are teachers able to relate the curriculum to life beyond the school?

(d) In what ways are children affected by outdoor experiences?

4) Information gathered may also have highly significant implications for teacher in-service and courses currently being offered or prepared at teacher training institutions in the province.

Purpose of the Study

The purpose of this study is to describe outdoor education activities within selected Alberta school administrations. Broad aspects of outdoor education given consideration include:

1) characteristics of teacher participants
2) teachers' perceptions of outdoor education
3) integration of outdoor education into school functioning
4) design characteristics of outdoor education programs
5) administration of outdoor education programs

Delimitations of the Study

Study findings apply to teachers and schools engaged in the pursuit of outdoor education in the twelve school administrations selected for the study.

Limitations of the Study

1) Study findings may only be assumed accurate for the time period in which the study occurred. The study was cross-sectional rather than linear thereby negating use of data in predicting trends or tendencies.

2) The accuracy of questionnaire and interview feedback must be assumed. Undoubtedly personal biases have colored some subject

responses.

3) Interview and questionnaire respondents were not randomly chosen. This limits study conclusions to those programs researched.

4) Instruments employed in gathering data are essentially unproven. In spite of the researcher's attempts to refine them as much as possible, they continue to possess only face validity.

5) Interview conditions could not be rigidly controlled. It can therefore be assumed that situational factors which varied from interview to interview may bear upon study findings.

Definitions of Terms

Outdoor education: One of the intents of this study was to determine what connotations Alberta teachers have for the term "outdoor education." The researcher was reluctant therefore, to employ a rigid definition of the term in the design of the study. An additional consideration was the fact that little agreement exists as to what actually constitutes outdoor education. For some educators it has rigid outdoor connotations, others include museum and art gallery visits under the broad category of outdoor education.

Programs reviewed in this study were considered to be outdoor education programs by involved personnel. All contained some element of outdoor study though forms of involvement ranged from schoolyard studies to wilderness camping experiences. Definition of the term was flexible and related to conceptions held by participants in individual programs.

Outdoor education program: A series of outdoor education activities

involving one or more classes or grades from a particular school or school system.

Outdoor education teacher: A teacher participant in an outdoor education program.

Extended outdoor education: Outdoor education activities of more than one day's duration taking place in a residence or camp setting.

Outdoor school: A permanent or non-permanent outdoor facility equipped to serve as a formal instructional setting.

School system or administration: A county, division or school district in the province of Alberta.

Key program personnel: Teachers or school administrators responsible for organizing, coordinating or administering outdoor education programs.

System level personnel: School system employees having consultative, supervisory, administrative or coordinative responsibilities with respect to one or more levels or areas of instruction in all or part of that system.

Chapter II

Related Literature and Research

Dimensions of Outdoor Education

What is Outdoor Education?

The phrase "outdoor education" defies precise definition because it has so many connotations and encompasses a wide variety of learning experiences that cut across many segments of a school program (Smith, 1969). Also it is viewed from differing perspectives by the teacher—generalist or specialist, the administrator, the layman and by those who see it as a partial solution for current problems in conservation, recreation and other areas.

Hammerman and Hammerman (1964) suggest that under differing circumstances, outdoor education might refer to science education, agricultural education, outdoor recreation, camping education or nature study.

Passmore (1972) points out that Canadian educators display similar variation in their conceptions of the term. Those whose interests relate particularly to environmental or ecological concerns have used terms such as "environmental education" or "conservation education" to describe their approach. Programs pursued by those seeking to inject adventure and physical challenge into outdoor learning have been given such labels as "outward bound education" and "wilderness survival education." Practitioners not wanting to tie themselves to any particular discipline or approach have simply termed their efforts "out-of-school education."

Educators are not even fully agreed upon the fact that outdoor education does in fact occur entirely in the out-of-doors. MacKenzie, Tempel and Wotherspoon (1971) suggest that outdoor education might be pursued indoors in a museum setting. Visits to industries, planetariums or theatres were seen as possible components of outdoor education by Stratton and Quinn (1969). Van Den Hazel's (1968) definition of outdoor education as "utilization of teaching resources which cannot be brought into the classroom (p. 22)," obviously provides latitude for a wide range of activities under this heading.

Doubtless some of the problems encountered in attempting to define outdoor education result from the fact that it is generally acknowledged to be a process or method of education rather than a discipline or curriculum subject. In this context a perspective advanced by Sharp (1952) would probably find the greatest acceptance among outdoor education practitioners. Sharp suggested that outdoor education is an instructional approach which compliments those studies legitimately occurring indoors by removing to appropriate settings those learnings best achieved through direct experience with native materials and life situations.

Pursuit of Outdoor Education

Because of the fact that outdoor education is conceived of in so many ways, no single set of objectives, goals or approaches characterizes its integration into schools. Its advocates have a variety of reasons underlying their decisions to involve children in outdoor pursuits. Among these reasons are the following:

1) It relates education directly to reality. Studies take

place in natural settings where students can use all of their senses to discover the characteristics of objects. Free from reliance upon vicarious or abstract learning, the student presumably is more motivated and derives more knowledge from his efforts.

2) Students learn to use the environment as a source of new knowledge. They become more aware of its potential for yielding information and develop skills which allow them to acquire this information.

3) An important part of many outdoor education experiences involves taking advantage of the recreational potential of the environment. This allows students to become competent in such outdoor pursuits as canoeing, camping and nature photography. At a time when growing leisure makes it important for individuals to increase their ability to use recreational hours effectively, this is a particularly critical facet of education.

4) Outdoor education programs bring students and teachers together informally. This usually results in freer communication among students and between students and teachers. Better skills for social interaction, concern and appreciation for peers and the ability to work effectively with others are therefore seen as potential outcomes of outdoor learning.

5) Exposure to the out-of-doors permits students to draw comparisons between "what is" and "what ought to be" in the environment. This stimulates the development of constructive attitudes towards nature at a time when environmental conservation has become a critical concern.

A number of outdoor education theorists, (Freeberg, 1968; Gabrielson and Holtzer, 1965; Hammerman and Hammerman, 1964; Kirk, 1968; Sharp, 1952; Smith, Carlson, Donaldson and Masters, 1972) have adopted the position that outdoor education involves use of the out-of-doors to facilitate and enrich learning related to the school curriculum. It is seen as an integral part of the curriculum that involves an extension of the classroom to an outdoor laboratory beyond the school building. This laboratory may be as close as the school yard or a nearby vacant lot. It might be a community farm, park or wildlife sanctuary. In other instances, it may be a provincial or national park some distance removed.

The foregoing authors regard outdoor education not as a discrete area of study, but rather as a framework into which can be fitted traditional study disciplines. Potentially it provides a link between discipline concepts and life experience. It can become a way for students to test out what they have learned in the classroom or as a source of inspiration for further study. It may also provide them the opportunity to obtain first-hand knowledge of things which have substantially less impact encountered vicariously than when actually experienced.

Outdoor education does not relate exclusively to any particular area of the school curriculum. Art, geography, history, language arts, music, mathematics, science and physical education all have their place within a broad program of outdoor studies (Gabrielson and Holtzer, 1965; Hammerman and Hammerman, 1964; Smith et al, 1972). Outdoor experiences may last from five minutes to one hour, to an

entire day or week. All grade levels from kindergarten to college may be involved in some form of outdoor education.

Outdoor education literature which attends itself to development of comprehensive outdoor programs stresses the importance of rooting such programs in early childhood learning. Continued development of programs in vertical fashion would see environmental instruction, initially taking place in areas close to the school, expanding ever outward to culminate in studies of extended duration remote from the school.

According to the Worth Commission Report (1972) such programs ought to develop sequentially with environmental investigation skills and required knowledge and values expanding and becoming more refined as one progresses through formal education. John Kirk (1968) suggests the beginning of programs in primary grades with attention to the immediate environment. The ultimate goal would be extended camping experiences.

In addition to its impact upon the student and the curriculum, outdoor education also strongly affects the functioning of teachers and schools. Teachers must develop new instructional approaches and revise pupil management techniques to meet the demands imposed by less structured, informal surroundings. In the absence of clearly defined guidelines, teachers are called upon to make intelligent decisions with respect to appropriate curricular content for the out-of-doors (Doty, 1967; Hammerman and Hammerman, 1964; Smith et al, 1972).

Schools involved in the pursuit of outdoor education at any level are faced with extra concerns of an administrative nature.

Problems related to pupil transportation, securing of special equipment, supplementary funding, legal implications of removing students from school et cetera, confront teachers and school administrators. The time, energy and resources required may be considerable, especially where programs involve much travel and are of an extended nature.

Outdoor Education Research

The State of the Art in Outdoor Education Research

According to a number of theorists (Donaldson, 1970; Gabrielson and Holtzer, 1965; Hammerman, 1964; Homans, 1965) outdoor education lacks a body of sound, empirically-based research. Hammerman (1964) suggests that in spite of the fact that over three hundred research studies have been completed pertaining to this field, few really useful studies have made their way into the periodic literature. Furthermore, most of the studies which do exist are based upon survey and questionnaire research and are therefore characterized, in many instances, by subjective biases.

Donaldson (1970) suggests that much research into outdoor education has been done on the basis of what is easiest to do rather than what needs to be known. This he feels might explain the undue research emphasis upon the resident, or school-camping aspect of outdoor education and the preponderance of administrative studies.

Hammerman (1964) believes that the failure of researchers to define and give shape to the various aspects of outdoor education has left the field without guidelines for continuing investigations. Donaldson (1970) supports this belief in his suggestion that the

absence of any authoritative or prestigious statements of research priorities has led to an uncoordinated approach to outdoor education studies.

Despite the fact that several investigators have studied these areas, the above authors suggest that the lack of empirical evidence has left gaps in the areas of curriculum, learning, child development, adjustment, behaviour and teacher education. As a consequence, they contend that many of the claims made for outdoor education, (i.e. its superior potential in the teaching of certain concepts, its usefulness in promoting democratic principles, affective growth, improved teacher-pupil rapport, peer appreciation, etc.) require further investigation and substantiation.

Effects of Outdoor Education on Pupil Development

Extensive use of the environment as a teaching medium represents an important departure from conventional approaches to education. It is more costly in many instances, requires the school to assume considerably more responsibility for pupil welfare, demands more teacher planning and calls for increased devotion of teacher and pupil time to instruction. In light of these facts, outdoor education supporters frequently attempt to justify this approach by focussing on those accepted educational aims which are most dramatically served by outdoor education (Donaldson, 1970). Because most children react well to the conditions generally present in outdoor learning (freedom of movement, novel surroundings, informal interaction with teachers and peers), affective and social growth are usually the most apparent outcomes of this kind of education (Ashcroft, 1957). Studies

attempting to assess pupil development in these areas are therefore fairly numerous, if not always of the highest calibre.

Self-Concept Development: Ashcroft (1957) reported that over half of 1500 school campers surveyed felt that their outdoor experiences had made them feel more self-reliant and happy about their usefulness to others. Baker (1959) found that experimental groups attending school camps showed more positive increases in self-concept than control groups over the same period of time. These findings are supported by those of Davidson (1965) who discovered that camping experiences of varying descriptions had positive effects upon pupil self-concepts. A 1971 survey conducted by Jones and Swan revealed that parents saw increases in pupil self-confidence as one of the most noticable outcomes of extended outdoor education experiences.

Attitude Formation: It would appear that many of a child's attitudes can be strongly influenced by outdoor education experiences.

Social Attitudes:

A number of researchers (Baker, 1959; Bell and Bell, 1957; Davis, 1960; Homans, 1965; Kleindienst, 1959; Jones and Swan, 1971; Johnson, 1957; Kranzer, 1958; Pepper, 1952; Shaw, 1964; Stack, 1960), have paid particular attention to the effects of extended outdoor education experiences on the social attitudes and competencies of students. In general, such experiences are seen to draw students closer together although Johnson (1957) and Kranzer (1958) found that students who were social isolates initially tended to maintain the same relative position within the group or to be more isolated

at the conclusion of an extended outdoor stay.. Bell and Bell (1957), Davis (1960), and Jones and Swan (1971), reported that parents felt their children had improved in their ability to relate to peers through participation in a school camp and Stack (1960) indicated that pupils appeared to value personal associations and relationships more under these circumstances than in a conventional classroom setting. Davis (1960) summed up his findings by suggesting that the goal of better human relations was apparently achieved in the particular school activity to which his study pertained. Kleindienst (1957) suggested that school camping programs offer significant opportunities for meeting school objectives especially in the areas of social living, peer appreciation and interpersonal communications.

Among Stack's (1960) findings were that racial cleavages as well as the usual barriers between students and teachers tended to diminish during camping experiences. Concerning the question of teacher-pupil relationships, Ashcroft (1957) reported that two-thirds of the 1500 students included in her survey were pleased that their classroom teacher could share their camping experiences and that they felt it afforded each the chance to know the other better.

Attitude Towards School:

Outdoor education apparently has salutary effects upon school-related attitudes generally. Shaw (1964) reported substantial changes in attitudes toward school among those participants in a travelling school camp. Among Jones' and Swan's findings were indications that parents believed outdoor education experiences to have enhanced their children's attitudes towards school. Half of the

students in Ashcroft's (1957) survey reported that their studies in the out-of-doors helped them to understand their schoolwork better and made them more appreciative of school. Cole (1957) studied the effects of outdoor education on the school-related attitudes of maladjusted male adolescents. He determined that outdoor education played a significant part in preventing these students from leaving school prematurely.

Attitudes Towards the Environment:

A critical test of the validity of outdoor education is its capacity for positively influencing student attitudes toward the environment. Pepper (1952) found increased appreciation of nature to be among a number of significant outcomes of school camping. Parents surveyed in the 1971 study of Jones and Swan listed knowledge of good conservation habits and awareness of pollution problems as areas in which they felt their children had acquired new understandings. Bell and Bell (1957) surveyed over five hundred parents to determine what they thought their children had learned at camp. Ninety-three percent of these parents listed knowledge, skills and appreciation of the outdoors as foremost among camp learnings. Similarly, over ninety percent of the students in Ashcroft's (1957) study suggested that they had become more aware of the importance of good outdoor manners and conservation, protecting forests against fires and the place and purpose of all living things in the total scheme of life.

On the basis of evidence presented, one may well come to the conclusion that outdoor programs are succeeding magnificently in their attempts to further the cause of environmental conservation. There

are researchers, however, (Homans, 1965; Howenstine, 1962) who suggest that more evidence is here required. Howenstine indicates that in eight outdoor education programs studied, each of which had clearly stated, high priority objectives relating to environmental conservation, little evidence of actual study relating to this area was seen. He suggests that meagre amounts of time were devoted to the study of conservation-related materials and that the teaching methods employed by many instructors, (i.e. wholesale collection of specimens) actually countered good conservation practises. Howenstine contends that two shortcomings characteristic of these programs account for at least part of their failure to promote conservation learning. The fact that instructors often do not understand fully what is required in conservation education and the assumption that mere exposure to the out-of-doors will result in the development of an appreciation of it.

The Promotion of Academic Growth Through Outdoor Education

In a review of research pertaining to outdoor education, Donaldson and Goering (1969) said this:

> Children show positive gains in personal-social characteristics following camp experiences. Improved relations with peers, improved race relations and improved teacher-pupil relations are most pronounced among noted gains. Some studies also suggest that a healthier self-concept may come from the same kind of experience. Studies in the cognitive domain are fewer, less well designed and productive of fewer impressive findings. The findings generally indicate little or no difference in efficiency between traditional methods and outdoor education methods (p. 6).

In spite of the preceding statements several studies are supportive of the notion that outdoor education contributes to academic growth. Cragg (1953) studied the effects of a one-week camping

experience on pupil development in particular skill areas, mainly relating to science. Her findings were that more gains were evident in the camp group than in a matched group of classroom-bound students. Hoeksema (1964) used an empirical approach to discover that the teaching of certain mathematical skills in the out-of-doors resulted in higher gains in post-test achievement scores among experimental groups than among matched controls. Though somewhat more subjective in their study approaches, Hollenbeck (1958) and Shaw (1964) contend that outdoor education is facilitative of student academic development.

Outdoor Education and the Teacher

Teacher Attitudes Towards Outdoor Education: The question of teacher attitudes toward outdoor education has not been the subject of much research (Cowan, 1972). The rapid growth of outdoor education programs must, however, reflect to a degree, positive teacher attitudes to this educational approach. Cowan (1972) found this to be so in a study of attitudes toward outdoor education held by Edmonton Public School System teachers. Although not all study respondents were involved in outdoor education, (about sixty percent were), as a group, these teachers displayed general acceptance of outdoor education aims and objectives, especially with regard to physical education and science. Ashcroft (1957) commented upon the extremely positive attitudes toward outdoor learning of the teachers whose pupils were included in her study. A review of subjective evaluations conducted in one hundred United States school districts, (Bell and Bell, 1957) showed that teachers who have been involved, regard outdoor education

as a satisfying personal experience as well as a valuable experience for students.

Teacher Involvement in Outdoor Education: Apart from personal attitudes toward the concept of outdoor education, Cowan (1972) found that several factors have a bearing upon teacher decisions to become, (or not to become) involved in outdoor education. Foremost among these factors is the time required to plan, prepare for and carry out learning programs beyond the school. Some teachers feel that such time can better be spent in classroom pursuits. Other factors include: "red tape" involved in taking pupils outside, difficulties involved in financing transportation, and the lack of structure inherent in outdoor activities, (making measurable outcomes difficult to determine). Teachers who do participate are strongly motivated by the belief that herein lies a superior method for achieving some kinds of instructional objectives (Cowan, 1972).

Hug (1964) found that teachers who become involved in outdoor education tend to be younger, less experienced, hold more degrees, and to have had more recent college education than those teachers who are not involved. He also found that factors such as grade level, ability level of students, availability of special equipment, general health of the class and socio-economic level of the community from which the students are drawn, do not strongly influence use of the out-of-doors. Age, health, home responsibilities, personal grooming, educational preparation and disruption of classroom routines were found to have little or no bearing upon teacher decisions to become involved. Hug determined that positive influences upon teachers

included personal interest in outdoor pursuits and leadership experiences in organized camping while constraints imposed by the belief that particular textbook or basic material must be covered was a discouraging factor.

Donaldson and Goering (1969), Pepper (1952), and Schafer (1965), saw involvement of teachers in outdoor education as very much related to the administration of schools and school systems. Pepper (1952) found the school administrator to be a key figure in developing and maintaining an effective and efficient school camping program. He also discovered that the school administrator is the person expected to provide leadership in developing interest in such a program.

Schafer (1965) determined that teacher superiors must provide the encouragements and inducements necessary to promote teacher participation in resident outdoor education. As incentives to participation he lists several factors, including: teacher involvement in total program planning, ample in-service opportunities, an administration position which views outdoor programs as integral parts of school functioning, well trained leadership and reduced classroom duties and/or salary recognition for school personnel functioning in program development.

Donaldson and Goering (1969) performed a review of outdoor education research and the following recommendations have arisen from their findings:

> Administrators need to convince teachers that the administration sees the value of outdoor education and that it desires to have teachers participate in outdoor education programs. Further, administration can:
> 1) Conduct an in-service education program emphasizing

the value of outdoor activities and their validity as part of the school curriculum;
2) Provide the teachers with adequate help in planning and conducting outdoor education activities;
3) Provide teachers with necessary equipment and teaching aids;
4) Reduce classes to manageable size;
5) Provide the teachers with lists of suggested usable sites and provide the transportation necessary to utilize them;
6) Provide the teacher with information concerning available resource people (p. 10).

Preparation of Teachers for Outdoor Education: It is obvious that the teacher is a key person in outdoor education. Donaldson and Goering (1969), McKnight (1952), Rogers (1955) and Schafer (1965) point to the relationship between teacher competency in the area of outdoor education and the success of programs of this type. Graff (1962) found that development of pupil understanding concerning environmental conservation related directly to the degree of exposure of their teachers to course and in-service work in the area of conservation. The preparation of teachers for work outside of the classroom has, therefore, become an area of concern for a number of researchers.

Some observers, (Craddock, 1955; Donaldson and Goering, 1969; Schafer, 1965), have determined that part of the task of developing teachers' competency in the area of outdoor education can be accomplished through in-service opportunities provided by the school or school system in which the teacher is employed. Other researchers have turned their attention to the role to be played by teacher education institutions in developing this competency.

In a 1961 survey concerning teacher preparation in the area of

outdoor education, Cyphers found that a majority of respondents had not received adequate training in the use of outdoor education resources either in undergraduate or graduate studies. Mouser (1950) and Rhead (1967) urge universities and colleges to expand their offerings in outdoor education related areas. On the basis of his study findings Mouser goes on to recommend involvement of school administrators, teachers and university faculty in weekend workshops concerning use of the environment for educational purposes.

Heppel (1964) and Laug and Eckert (1962) determined that involvement of prospective teachers in extended outdoor education or camping experiences makes them not only more competent in these areas but has positive implications for other educational concerns. Among Heppel's findings were that education students identified improved awareness of the environment, appreciation of the benefit of group activities, greater insights into individual pupil differences interest spans, cooperativeness and personality fluctuations as a result of a five day camp situation with children. Berger (1958) cautions that no single experience or course is capable of developing all needed competencies in outdoor education teachers and leaders. He suggests that an integrated program related to all areas of the curriculum is more in line with the needs of outdoor education personnel. Donaldson and Goering (1969) charge teacher education institutions with responsibility for providing prospective teachers with the following:

1) an understanding of the values of outdoor education
2) an understanding of the relationships of outdoor education with the school curriculum
3) skills in planning for outdoor education and in working with children in the outdoors
4) an appreciation of the values of living in a

peer community having daily living tasks and work experiences

5) the concept that the teacher should be concerned with the development of the whole child (p. 11).

Outdoor Education and the Curriculum

Donaldson (1970) and Hammerman and Hammerman (1968) point to the deficiencies in research relating outdoor education to the school curriculum. Several researchers have, however, attended themselves to various aspects of this problem and have advanced a number of observations and recommendations based upon study findings. Stapp (1963) concluded that conservation education occurred more efficiently when studies were integrated into existing curricula than when isolated as specific courses. Pulliam (1963) recommended that outdoor studies be expanded in nearly all curricular areas with the inclusion of conservation and outdoor skills into instructional programs. Schafer (1965) presented the notion that in order to gain acceptance and support, programs must be viewed as integral parts of total school functioning.

Concerning the pursuit of outdoor education, Rogers (1965) suggests beginning with simple experiences conducted in the immediate environment. With advancing pupil maturity, experiences would become more complex and learning sites more remote from the school. The ultimate outdoor education experience according to Rogers is some form of school camping or residence program. Underlying Rogers' conception of outdoor education is the belief that children should be gradually introduced to this kind of learning and that experiences obtained at each level should provide a foundation for subsequent experiences.

Howenstine (1962) makes several observations concerning outdoor

education and the school curriculum. Over a two year period, he studied the functioning of eight school camping programs in Michigan and Ohio. On the basis of subjective reactions to these programs, Howenstine contends that citizenship, conservation, natural science and physical education are the areas of curricular concern best served by outdoor education. Continuous participation in a small intimately functioning group, realistic learning experiences and the necessity for constant physical activity account for outdoor education's usefulness in these areas.

Because outdoor education programs are conceived to meet the needs of particular learners, in particular locations at particular times, there is considerable variation in the ways in which programs are pursued. Furthermore, sufficient flexibility must be present within programs to allow pursuit of particular pupil interests or activity changes necessitated by such factors as weather. A danger inherent in these conditions is that clearly defined program objectives are sometimes not formulated and the degree of integration of outdoor education with the existing curriculum is difficult to ascertain (Homan, 1965; Pulliam, 1963). On other occasions when objectives are implicit rather than explicit, they may be pursued in such a way as to completely negate their intended outcomes (Howenstine, 1962). Additional research into the area of curricular objectives as related to outdoor education is a concern of those observors just mentioned as well as other theorists.

Administration of Outdoor Education Programs

A significant proportion of outdoor education research relates

itself to the administration of programs, particularly those programs of an extended nature such as school camping or residence outdoor schools (Donaldson, 1970; Hammerman, 1964). Donaldson suggests that such problem areas as site acquisition, pupil transport, program financing and legal aspects of outdoor study have attracted the attention of researchers because they are clearly visable, central to outdoor education functioning and are easily researched. Hammerman (1964) points out that many of these studies were basically proposals for the implementation of a specific resident outdoor school. They are primarily descriptive in nature with few, if any, of an experimental variety but they nevertheless make program administration among the best researched areas of outdoor education.

Walton (1955) reviewed thirty school camping programs and found that distance from school is not an important factor in choosing learning sites. Locations were chosen on the basis of appropriateness for program objectives rather than their accessability or the amount of time required to reach them. He further found that in most cases, the bulk of program planning occurred after sites had been chosen and examined by program personnel.

Colaw (1960) and Turner (1967) found that the majority of school camping sites are leased or rented by schools. A recommendation emanating from Schafer's (1965) study urged neighboring school districts to pool resources in the joint operation of regional outdoor schools.

Colaw (1960) and Donaldson and Goering (1969) point out that the need for schools to go far afield or to invest in expensive holdings is not supported by experience or research. They contend that outdoor

education can successfully occur in teaching stations proximate to the school or in nearby children's camps. Colaw's (1960) findings included the fact that throughout the United States, local and federal agencies have lands, funds and services to offer school districts for outdoor education and recreational purposes. A study undertaken by Passmore (1972) indicates that a similar situation prevails in most regions of Canada.

Administrative studies have revealed a number of other similarities concerning a wide variety of outdoor programs. Bain (1956), Colaw (1960), Turner (1967) and Walton (1955) all found outdoor education to be primarily focussed at the upper elementary level, mostly involving sixth-grade students. Most programs require funding beyond that provided for education and the assessment of student fees occurs commonly (Colaw, 1960; Jones and Swan, 1971; Schafer, 1965; Turner, 1967). Program planning is typically a cooperative activity bringing together many individuals including teachers, school administrators, resource personnel and not infrequently, parents, (Craddock, 1955; Donaldson and Goering, 1970; McKnight, 1952; Schafer, 1965; Walton, 1955).

Ambry (1964) listed as the most significant problem related to outdoor education, finding enough skilled staff to operate a camp. Of medium difficulty he found to be problems of a legal and financial nature. Difficulties relating to curriculum, public relations and senior administration were of least concern. Financing and staffing were found to be largest concerns of programs studied by Turner (1967). Passmore (1972) includes breaking down teacher inhibitions toward

outdoor activity, program staffing, teacher preparation for the out-of-doors, program planning, pupil transport and program financing among problems facing Canadian practitioners.

Toronto Outdoor Education Study

One of the most comprehensive studies of outdoor education in Canada was completed in 1971 by D. C. Hambleton and associates. This study examined the functioning of programs in Metropolitan Toronto and took the form of survey of the activities and attitudes of principals and teachers concerning outdoor education. Three groups were surveyed: principals, teachers generally and those known to be involved in outdoor education.

Hambelton found only a small segment of teachers to be disinterested in involving their pupils in studies occurring away from the school. Most considered outdoor education to be an integral and vital adjunct to their present program. Obvious to Hambleton was a high degree of enthusiasm for outdoor learning on the part of pupils, outdoor site personnel and involved teachers. Following are summaries of the findings of each survey.

School Administrators' Survey

Over four hundred principals, (79 percent of those sampled) representing all levels of public education, (elementary, intermediate and secondary) responded to the principal survey. The consensus among respondents was that outdoor education is in theory a worthwhile pursuit. Principals of elementary and intermediate schools were generally more enthusiastic in their acceptance of outdoor education

and accorded it greater worthwhileness for pupils and teachers than secondary principals. Principals at all levels indicated teacher encouragement as the strongest influence in extending their programs while pupil pressure was next, followed closely by pressure from administrative superiors.

Principals were also asked to indicate what proportions of their staffs and student bodies were involved in outdoor learning programs. Findings indicated that the highest percentages of pupil and teacher involvement occurred at the elementary level with the lowest at the secondary level. Direct involvement by the principal himself followed a similar pattern.

Asked to indicate areas of greatest difficulty relating to administration of outdoor education programs, principals varied somewhat in their responses. Elementary principals found, (in order) transportation, lack of teacher preparation, sites and facilities, expense, and timetabling problems to be the five most significant problem areas. For intermediate principals it was timetabling, expense, transportation and sites and facilities (with little differentiation among them). Secondary principals indicated timetabling problems to be by far the most significant while transportation, expense, lack of substitute teachers and inadequate teacher preparation were problems but of lesser magnitude.

Attitudes of a Cross-Section of Toronto Teachers

Slightly under thirteen hundred teachers responded to the survey, (about one half of those contacted). Again these respondents were drawn from three educational levels. Although this group

supposedly included non-participants in outdoor education as well as participants, the nature of the feedback obtained indicated a fairly high degree of involvement by respondents.

The majority of this group of teachers considered outdoor education experiences to be of very great benefit to pupils. Elementary and intermediate teachers were more convinced of outdoor education's usefulness as a teaching tool, desired greater utilization of the environment in instruction and were more active in this area than secondary teachers.

Finding time to do outdoor education, relating outdoor experience to subject area taught, timetable disruption, transportation problems, and lack of personal preparation for teaching out-of-doors were the factors which most limited the outdoor activity of these teachers taken as a total group. Greatest hindrances to participation, (considered separate from the foregoing), were transportation concerns, timetable disruptions, obtaining facilities and sites, funding and time to pursue activities. Timetable problems were of the greatest significance to intermediate and secondary teachers while elementary teachers found acquisition of transportation to be their greatest stumbling block.

Survey of Involved Teachers

This survey was the most comprehensive of the three and focussed not only on teacher attitudes but on program functioning as well. The number of respondents was slightly over one thousand, about half of those contacted.

Three basic routes to involvement in outdoor education were

named by these teachers. The foremost route, (given by over 50 percent of respondents), was identified as "professional improvement." Aspects of this route were in-service courses, a desire to compliment classroom teaching with real experiences, encouragement by superiors and inclusion in programs originating within the school. About one-third of respondents gave personal interest in the out-of-doors or environmental concern as reasons. About one-seventh indicated that past experience, such as involvement in organized camping most strongly influenced their decision to become involved.

Among involved teachers, the greatest amount of activity occurs at the elementary and intermediate levels with the least at the secondary level. More than seventy percent of all of these teachers had, however, taken at least two trips during the past two years. The majority of trips taken were of a short duration, not exceeding a day in length. Less than half of these teachers had engaged in any overnight activity during the previous two years and only about one quarter had had weekend or outdoor education school residence experiences during that time. Intermediate level involvement in extended activities exceeded that of the other levels while secondary involvement was next, and elementary teachers tended to focus on numerous short trips. The greatest majority of respondents, (about 80 percent) indicated the desire to extend their activities in outdoor education with secondary teachers expressing this desire most strongly.

Hindrances to additional involvement mainly centered upon lack of time to plan and arrange activities, transportation problems, timetable disruptions, lack of personal preparation and shortages of

operating funds. Time and timetable considerations were again of greatest concern at the intermediate and secondary levels while transportation was the greatest source of problems for elementary teachers. In spite of the fact that lack of personal preparation was a significant hindrance at all levels, more teachers expressed a willingness to do in-service than actually participated in courses offered.

Teachers at all levels reported almost one hundred percent acceptance of outdoor education by parents. The greatest willingness to become involved in program operation was, however, displayed by elementary parents. Study respondents indicated that about half of elementary parents had volunteered their services while about a third of intermediate and approximately one tenth of secondary parents had done the same.

Eighty percent of respondents indicated that their principals gave them some support in their efforts. Only a small proportion of the respondents at any level expressed dissatisfaction with the kind or amount of assistance provided them by the administration of the school.

Teachers involved in outdoor education found "planned activities" to be the most time consuming of all related tasks. Also high in this area were pre-trip discussions with pupils, trip experiences and follow-up work. Least time was spent on fund raising.

Also included in this survey were teacher observations concerning such administrative concerns as acquiring human and material resources, funding, selecting program participants, site selection and pupil transport.

Science or outdoor education consultants were considered by about one-third of respondents to be of greatest usefulness as resource persons. About one-sixth considered experienced colleagues useful while about one-seventh suggested that they prefer consultations with principals. Eight other choices were also mentioned.

Teachers were generally of the belief that children should not be excluded from outdoor learning activities. Where this becomes a necessity, however, teachers as a group tend to select first on the basis of pupil interest, secondly on the basis of those most likely to benefit from the experience, third according to pupil behaviour and fourth on the basis of academic performance. The criteria of behaviour and academic performance were high second and third choices respectively, of intermediate teachers, while academic performance was placed second by secondary teachers.

Most of the respondents felt that pupil subscription is a legitimate means of securing funds. Over half felt, however, that two dollars is a ceiling figure and that attempts to exceed this amount would fail or be only partially successful. One-third felt that even attempting to collect two dollars would be a very difficult task.

About seven-tenths of survey respondents indicated that appropriate outdoor education sites can be located within walking distance of the school. Furthermore, about twenty percent of all trips were to these sites, (over seventy percent of trips did not exceed ten miles in length).

In spite of the fact that eighty percent of trips required

pupil transport, over sixty percent of the respondents did not consider transportation a problem. Almost all pupil transportation was done in busses of some type, (chartered, school, transit, etc.). Private transport was used in only one percent of cases.

Teachers varied considerably in their assessments of the adequacy of instructional and equipment resources available to them in the pursuit of programs. Three-quarters of elementary and secondary teachers felt amply supplied with library and teaching resources while only one-half of secondary teachers expressed similar feelings. Over forty percent of intermediate teachers felt they had been given sufficient equipment for field studies while only one-quarter of elementary teachers and one-fifth of secondary teachers felt this way.

Adequate preparation for outdoor activity was highly stressed at all levels. Accorded very high status were planning, program preparation within the classroom, site investigation, follow-up activities and program evaluation. Only slightly less importance was attached to consultation with reference persons and use of resource materials.

Slightly less than fifty percent of involved teachers claimed to have observed long range effects on pupils of outdoor education experiences. Where lasting effects were noted, they consisted primarily of improved knowledge, awareness and interest concerning the environment, improved pupil functioning social settings and heightened capacities (better school-related attitudes, increased curiosity, better retention, etc.) for learning, (in that order).

Short term effects appear more noticeable to teachers. Over

eighty percent reported that students developed new interests as a result of outdoor education activities and an almost equivalent number felt that a more positive attitude toward nature had resulted. About half reported positive changes in general school behavior while six percent reported negative changes and forty-five percent either did not know, or provided no information in this regard. Respondents at the secondary level provided the least information concerning pupil changes. Eighty-six percent of involved teachers felt that outdoor education undertakings generally measured up to their expectations, (fifty-four percent were unequivocal). Only five percent felt that such undertakings did not live up to their expectations.

Chapter III

Procedure of Study

Approach to Data Collection

It was felt by the researcher that interview and questionnaire feedback obtained from school personnel involved in outdoor education would be appropriate means of obtaining study data. Because no satisfactory instruments for the collection of such data were found to be in existence, it was necessary to construct and refine original instruments for the purposes of this research.

Selection of Study Areas

The researcher was interested in describing Alberta outdoor education programs as fully as possible. Drawing from previous experience in this field and making use of research data and other outdoor education literature, a list of potential research areas was derived. After discussing study areas with faculty and students this list was revised to that which appears below:

1) personal characteristics, professional background and numbers and kinds of outdoor education related involvements of teachers utilizing the out-of-doors

2) routes to involvement of teachers in outdoor education

3) teacher conceptions of outdoor education—objectives, curricular integration, development of activities

4) facilities primarily employed in outdoor education pursuits

5) proportion of instructional time spent in the out-of-doors, seasons involved

6) recognized outdoor education outcomes most apparent in programs; least apparent

7) factors hindering or facilitating teacher efforts in this area

8) concerns of program administration: Pupil-teacher attitudes and involvement, funding, equipment acquisition, site selection, parent-community attitudes and involvement

9) program objectives; evaluation

10) difficulties or problems associated with program development; suggested ways of dealing with such concerns.

Items one through seven were incorporated into a teacher questionnaire while items eight through ten formed the basis for the interview schedule utilized in obtaining feedback from key program personnel.

The Teacher Questionnaire

The areas indicated were expanded into a questionnaire comprised of four separate sections and a total of nineteen questions. The sections were entitled:

A. Biographical

B. Program Organization

C. Objectives and Outcomes

D. Factors Affecting Outdoor Education Programs

An original draft of the questionnaire was presented to the researcher's thesis advisor as well as to four other members of the Department of Elementary Education and a number of graduate students. They were asked to comment upon its format, clarity and apparent suitability

(face validity) for its intended purpose. Eight of twelve of these questionnaires were returned along with extensive comments useful in the further refinement of the instrument. In addition to locally obtained comment, a lengthy criticism of the instrument was obtained from Dr. W. Boldt of the University of British Columbia. (Dr. Boldt is an educator well acquainted with outdoor education procedures.)

Pilot Study

At this point, a second draft of the questionnaire was prepared and permission gained to administer the revised instrument to twelve teachers in three randomly selected schools within the Edmonton Public School System. (These schools were selected from a system-prepared list of schools known to be actively involved in outdoor education.) One school from each of the elementary, junior high and senior high school levels was chosen.

With the aid of the principal in each school involved, a key person in the outdoor education program of the school was identified. Further contact with the school including distribution and collection of questionnaires was accomplished with the aid of that individual. The contact person also identified other colleagues within the school who were active in the outdoor education program of the school.

The purpose of the pilot administration was to assist in further refinement of the teacher questionnaire. The four teachers from each school participating in the pilot administration were asked to complete the instrument, note the time required and insert written comments concerning ambiguities or areas within the instrument lacking in clarity. They were further requested to comment upon their feelings

with respect to the nature and appropriateness of the questionnaire either on the instrument itself or through the contact person.

The questionnaires were delivered and collected personally and were in the hands of teachers for a period of four days between April 16 and 19, 1973. During the process of questionnaire collection the contact persons employed gave additional feedback concerning teacher reactions to the questionnaire. Eleven of twelve instruments distributed were returned in completed form.

Prior to the preparation of a final draft, two consultants from Educational Research Services of the University of Alberta were asked to examine the questionnaire and make suggestions concerning the wording of directions, format, and codability of responses.

A careful analysis of pilot study and consultant feedback was made and a third draft of the questionnaire was prepared. Before printing the questionnaire, however, it was given a final scanning by a member of the Department of Elementary Education and the thesis advisor. With minor modifications the questionnaire was then prepared in its present form. (See Appendix A.)

Interview Schedules

It was felt by the researcher that certain of the concerns of this study lent themselves particularly to interview approaches involving personnel responsible for the administration of outdoor education programs. These data related to such areas as program financing, public relations, site acquisition, pupil transport and problems related to program administration. Since the study was conceived in such a way as to involve travel to points where outdoor

education was being pursued, this method of data collection was considered to be quite feasible as well as desirable.

Two interview schedules were constructed. One was for use in interviewing school level personnel occupying key positions in the administration of outdoor education programs. This schedule was employed in research involving each of the school administrations in the study.

Since it was found that eight of the school administrations surveyed contained outdoor education programs heavily involving of central administration or superintendancy level personnel, a second interview schedule was constructed to ascertain the nature and extent of this involvement. It was employed in research pertaining to eight of twelve of the selected programs.

Content for the interview schedules was drawn from the aforementioned list of potential study areas. The "school level program coordinator interview schedule" (see Schedule I, Appendix B) consisted of thirty-eight questions.

An initial draft of the interview schedules was presented to the thesis supervisor and they were judged to be appropriate for their intended purposes. Schedule I was employed in conjunction with the questionnaire pilot study. Minor modifications were made to the wording of some questions and appropriate probes were identified. Schedule II was employed as originally drafted.

Procedures Involved in Obtaining Research Subjects

The intent of this study was to survey outdoor education programs in school administrations wherein such programs had been in

operation for at least three years. The rationale for this decision rested upon the assumption that such programs would have a better defined structure and that involved personnel would be more able to comment upon program outcomes and the impact of outdoor education upon the school and its functioning than those programs whose activity was just being initiated.

Assistance from the Alberta Department of Culture, Youth and Recreation was secured in identifying established programs of outdoor education throughout the province. (This government agency has facilitated the establishment of outdoor education programs in a number of Alberta school administrations through the provision of grants for this purpose.) From departmental records fourteen school administrations were identified, each having had initial funding no more recently than 1970. The first decision to include thirteen of these in the study was altered because of difficulties encountered in concluding final study arrangements. The number was reduced to the twelve listed below:

1) Calgary Public School System
2) Calgary Separate School District #1
3) Cardston School Division #2
4) Edmonton Public School System #7
5) Edmonton Catholic School District #7
6) Parkland County #31
7) Red Deer Public School District #104
8) Red Deer County #24
9) Rocky Mountain School Division #15

10) Stettler School Division #1475

11) Westlock School Division #37

12) Yellowhead School Division #12.

Department of Culture, Youth and Recreation files also yielded the names and addresses of liaison persons in each of the selected school administrations.

On February 23, a letter (see Appendix D) was sent to the liaison person in each of the chosen administrations explaining the nature and purpose of the study and requesting cooperation in conducting research. By March 14 affirmative replies had been received from all but one of the administrations contacted. A follow-up letter resulted in a positive response from this administration.

During the month of April additional contacts were made to finalize study arrangements and to construct a timetable for visitation of each of the administrations included in the study (see Appendix E). Liaison persons were able in most instances, to arrange for visitation of programs of interest to the researcher. This saved time as well as insuring that visits to particular schools or outdoor sites would be anticipated by personnel involved.

The school administrations surveyed varied with respect to the numbers and types of outdoor education programs contained in them. Personnel contacted in five of the administrations chosen, placed total participation in outdoor education at less than ten teachers. Of the remaining seven administrations, only one placed total participation at over one hundred teachers. (It is important to note, however, that these figures were not totally representative of all outdoor education

occurring within the systems surveyed, only those programs of which liaison persons were aware. The researcher discovered during the course of the study, that many more teachers were involved in outdoor education of some description.)

In light of the above facts, the decision was made to survey totally all programs and teachers in administrations where this was possible. In instances where such could not be achieved, liaison personnel were asked to supply a list of representative programs and from these up to four programs were randomly chosen for study. In total, thirty-two programs in a corresponding number of schools were reviewed within the twelve selected administrations.

Data Collection

Collection of data proceeded in such a way as to permit direct researcher contact with personnel involved in chosen outdoor education program. Contacts were generally made within school settings, but in some instances did occur at outdoor education sites. Site visitations permitted the researcher to personally view learning activities as well as to interact informally with teachers and students. Field research occupied the writer fom April 30 to June 12.

In the thirty-two programs reviewed, thirty-eight taped interviews involving forty-six respondents were conducted. In most instances interviews involved a single respondent but in some schools, two or more individuals had shared responsibilities for program administration and each asked to be present for the interview. Some schools also displayed program variations occurring in different subject areas or at different grade levels and program co-ordination and administration

again involved two or more persons. In these instances more than one interview was conducted at that school. These factors account for the fact that the number of interviews and interviewees exceeds the number of programs reviewed.

At each school visited, the request was made to have at least four teachers involved in the school's outdoor education program respond to the teacher questionnaire. In some schools as many as seven teachers agreed to do so, in other schools fewer respondents were obtained because fewer than four teachers were involved. Whenever possible, the researcher attempted to personally present questionnaires to respondents and collect them upon completion. This was done in the belief that a higher rate of return might result from such procedures.

In addition to research conducted at the school level, attempts were made to consult with system or superintendancy level personnel having outdoor education-related responsibilities. In three of the twelve administrations surveyed, essentially no personnel beyond the school level were involved in outdoor education. Apart from granting permission for programs, system administrators had little to do with program functioning.

In a fourth administration, the outdoor education co-ordinator was a teacher with part-time system-level duties as a curricular consultant. This person functioned therefore at both levels and was able to comment on program operation as well as the position and functioning of the central administration.

In eight of the twelve administrations, system-level personnel

were involved in some way with outdoor education. Included were persons ranging from consultants to assistant superintendants. These administrations were generally in the process of developing system-wide approaches to outdoor education. The aforementioned personnel not only facilitated and coordinated program functioning but were active in the formulation of system guidelines for outdoor education.

Program Literature

A number of administrations as well as individual schools have produced study guides, policy statements or progress reports in connection with outdoor programs. In many cases these were made available to the researcher as supplements to interview and questionnaire feedback.

Questionnaire Returns

Although initial plans called for personal collection of questionnaires, it was necessary to make provision for return of a large proportion of them by mail. On June 8, when data gathering was almost complete, forty-four questionnaires were still outstanding. A follow-up letter (see appendix), was sent to programs where responses were incomplete. Within twelve days an additional thirty-one questionnaires were received. Phone calls to liaison personnel in programs not yet responding, resulted in receipt of another thirteen questionnaires.

An analysis of questionnaire returns appear in Tables 1 and 2 following.

Table 1

Questionnaire Returns by School Level

School Level	Number Distributed	Number Returned	Percentages
Elementary	68	62 (59)*	91.2 (86.8)*
Junior High	21	16	76.2
High School	18	12	66.7
Totals	107	90 (87)*	83.2 (81.3)*

*Three questionnaires were not usable.

Table 2

Demographic Distribution of Questionnaire Returns

Location of Program	Number Distributed	Number Returned	Percentage
Urban	58	48 (45)*	82.8 (77.6)*
Rural	49	42	85.7
Totals	107	90 (87)*	83.2 (81.3)*

*Three questionnaires were not usable.

Analysis of Interviews

Tapes of each interview were reviewed three times. During the initial review, a detailed account was made of the substance of each interview. Notes thus prepared were used to construct response categories for data contained on the tapes. A second review of the tapes was made to organize data into the categories established. A third review of each tape was made two or three weeks subsequent to the second listening. This was done to confirm previous analysis of tapes.

The number of interviews reported corresponds to the number of programs surveyed. Where two or more interviews were made, corresponding to a single program, findings were combined to present a composite picture of that program. Tables 3 and 4 provide an analysis of programs surveyed.

Treatment of Data

Both questionnaire and interview data were analyzed by determining the number of times each response category was chosen. Findings are presented in tabular form, and interpretation of data occurs in the accompanying text. Raw scores and/or percentages are used in each instance.

The decision was made not to include system-level administrator feedback in the data analysis. This decision was based on the fact that data obtained through questionnaire and school-level interviews is extensive and should serve to adequately describe chosen programs. This additional data remains available, however and might be incorporated into a later study.

Table 3

Educational Levels Surveyed

Program Level	Number of Programs at Level Indicated (N = 32)	Percentage
Elementary School Only	14	43.8
Junior High School Only	5	15.6
High School Only	7	21.9
Elementary and Junior High School Combined	6	18.7
Totals	32	100.0

Table 4

Demographic Distribution of Programs

Location of Program	Number of Programs at Level Indicated (N = 32)	Percentage
Urban	16	50.0
Rural	16	50.0
Totals	32	100.0

Chapter IV

Presentation and Interpretation of Questionnaire Data

Questionnaire feedback was obtained from teachers at the elementary, junior and senior high school levels. Excepting those instances where notable differences occurred among responses drawn from teachers at different levels, study findings are reported collectively. The decision to combine rather than partition data according to grade or level was based upon the following three factors:

1. There was considerable overlap concerning the grades and levels at which individual subjects functioned.

2. The majority of subjects were drawn from programs operating at the elementary level where most outdoor education in this province is focussed. Respectively, only about eighteen and fourteen percent of subjects were associated solely with junior and senior high school programs. Small numbers in each instance, make it impossible to draw valid conclusions from anything but gross differences in overall responses.

3. Data sought was of a very general nature and in many instances responses among levels tended to parallel one another.

The questionnaire was intended to elicit personal information concerning outdoor education teachers as well as facts relating to the operation of outdoor learning programs. Early portions of the chapter will therefore be devoted to information of a biographical nature while subsequent parts will present aspects of program operation from the perspective of teacher participants.

Characteristics of Teacher Participants in Outdoor Programs Studied

Sex

Although study procedures were not strictly random, attempts were made to secure representative feedback from all programs studied. In spite of this, a heavy majority of study subjects were males. At the elementary level where participation favored males by a two to one ratio, the division was most equal. Of the sixteen junior high subjects all but one were male and nine of twelve senior high subjects were male. Overall, about seven out of ten subjects were male. Distribution of male and female teachers is shown in Table 5.

Table 5

Sex of Outdoor Education Teachers

Sex	Number of Teachers (N = 87)	Percentage
Male	62	71.3
Female	25	28.7
Totals	87	100.0

Years of Teaching Experience

More than half of the teachers included in this study had less than eight years of teaching experience. As shown in Table 6, the number of teachers with lengthy experience in the profession drops rather sharply after the second response category. Elementary and junior high responses paralleled the composite picture as represented

Table 6

Years of Teaching Experience of Outdoor Education Teachers

Years of Experience	Number of Subjects (N = 87)	Percentage
0 - 3	25	28.7
4 - 7	27	31.0
8 - 11	18	20.7
12 - 15	8	9.2
16 - 19	5	5.8
20 plus	4	4.6
Totals	87	100.0

in Table 6. Five of the twelve senior high subjects had, however, taught for eight or more years and two had twenty or more years of experience.

Grades Taught

Almost half of the subjects performed some teaching duties at the grade six level. Findings of this portion of the questionnaire plus those of the interviews, (to be presented in Chapter Five), indicate that the majority of teacher participants in the selected programs were drawn from the upper elementary grades. Significantly fewer came from the junior and senior high school levels while the smallest proportion were teachers of lower elementary grades. (Table 7)

Teaching Majors

Table 8 shows that teachers of science comprised the greatest proportion of the total sample of any single group included in the study. Physical education and social studies teachers were the next largest groups and combined, the largest three groups account for about two-thirds of the total study population. A preponderance of these majors was found at all levels within the study. Of the remaining one-third of the sample, over half were either English/Language Arts or Mathematics majors. Included in the category labelled "Others" were one each of Art, Business Education, French, Industrial Arts, Music and Vocational Education majors.

Other Professional Involvements

About one in five study subjects was either a principal or a vice-principal at one of the educational levels included in the study.

Table 7

Grade Level Assignments of Outdoor Education Teachers

Grade Level Where Some Teaching Done	Number of Subjects (N = 87)	Percentage
1	4	4.6
2	8	9.2
3	11	12.6
4	15	17.2
5	31	35.6
6	39	44.8
7	20	23.0
8	14	16.1
9	17	19.5
10	10	11.5
11	12	13.8
12	10	11.5
Special education	2	2.3
Totals	193*	221.7*

*High totals due to multiple responses by some subjects.

Table 8

Teaching Majors of Outdoor Education Teachers

Teaching Major	Number of Subjects (N = 87)	Percentage
Science	23	26.4
Physical Education	18	20.7
Social Studies	16	18.4
English/Language Arts	9	10.3
Mathematics	8	9.2
Early Childhood Education	4	4.6
Special Education	2	2.3
Others	6	6.9
No Response	1	1.1
Totals	87	99.9*

*Varies from one hundred percent due to rounding error.

Almost three of every ten performed professional duties other than those directly involved in teaching. (See Table 9)

Table 9

Professional Involvements (Other than Teaching) of Outdoor Education Teachers

Kind of Involvement	Number of Subjects (N = 87)	Percentage
School Administration	17	19.5
Professional Committee or Council (i.e. A.T.A. Specialist Council)	5	5.7
Co-ordinator	1	1.1
Curricular Associate	1	1.1
Department Head	1	1.1
No Other Involvement	62	71.3
Totals	87	99.8*

*Varies from one hundred percent due to rounding error.

Of the three levels, elementary had the highest percentage of administrators among questionnaire subjects. Almost twenty-four percent of study participants at this level were administrators. About thirteen percent of junior high and eight percent of senior high subjects were part of the administrative structure of the school.

Introduction to Outdoor Education

The most prevalent factor in the introduction of teachers to outdoor education was contact with other teaching associates. Almost half of those surveyed gave this or a closely related factor as the

means of their initial awareness of this kind of activity. Many could not recall precisely how they had become aware and others suggested a number of possible avenues. A summary of questionnaire findings appears in Table 10.

Table 10

Introduction to Outdoor Education

Form of Introduction	Number of Subjects (N = 87)	Percentage
Informal contact with a colleague	37	42.5
Related course or workshop	25	28.7
Exposure to related literature	16	18.4
Discussion with a consultant or curricular associate	12	13.8
Interest in out-of-doors	10	11.5
Convention session	7	8.0
Asked to participate	5	5.7
Observation of other programs	5	5.7
Program in existence when joined staff at present school	2	2.3
Totals	119*	136.6*

*High totals due to multiple responses by some subjects.

Training in Outdoor Education

Research findings indicate that teachers participating in this study have had only moderate preparation for practising outdoor

education. Although such courses are available at a number of institutions, (including some in Alberta) only about one in five teacher respondents have taken credit courses in outdoor education at a college or university. Most adequately equipped in this regard were senior high school teachers who reported over forty percent participation in one or more courses of this description. Elementary and junior high teachers both reported less than twenty percent participation.

About half of teachers at all levels indicated some involvement in teacher workshops or professional development courses pertaining to outdoor education.

Non-credit, extension or "special interest" courses which relate to outdoor education were completed by about thirty-seven percent of subjects. Sixty-nine percent of these were in the junior high school group, thirty-two percent were elementary and seventeen percent were senior high teachers. The most popular course of this description was the "Alberta Hunter Training Course" which was completed by about sixteen percent of the total study sample. A variety of courses in first aid, outdoor recreation, nature photography, geology, nature study and outdoor education leadership were cited as additional examples. Kinds and numbers of courses taken in outdoor education appear in Table 11.

About one-third of all teachers in the study reported no participation in courses of any description, an additional twenty-eight percent indicated that their training consisted of only one or two courses or workshop experiences.

Table 11

Courses Completed by Outdoor Education Teachers

Type of Course	None Taken (N = 87) %	One or Two Taken (N = 87) %	Three or More Taken (N = 87) %	No Response (N = 87) %	Totals
Credit courses in outdoor education taken at college or university	78.2	17.2	3.4	1.1	99.9*
Teacher workshops or professional development courses in outdoor education	49.5	35.6	13.8	1.1	100.0
Non-credit, extension or "special interest" courses which relate to outdoor learning (i.e. Alberta Hunter Training Program, nature photography, taxidermy, etc.)	62.1	32.2	4.6	1.1	100.0

*Varies from one hundred percent due to rounding error.

Periodical Reading

Use of periodical literature as a source of outdoor education information appears restricted to about one-quarter of study participants. This response was exactly uniform throughout the three educational levels included in the study. (See Table 12)

Table 12

Periodical Reading by Outdoor Education Teachers

Subscribe to or regularly read outdoor education periodicals	Number of Subjects (N = 87)	Percentage
Yes	21	24.1
No	65	74.7
No Response	1	1.1
Totals	87	99.9*

*Varies from one hundred percent due to rounding error.

Outdoor Education Related Books or Manuals

Only fifteen percent of teachers surveyed had read no books or manuals related to outdoor education. Almost thirty percent had read more than six publications of this description. Elementary teachers appear to have done the least amount of reading with about three-quarters of subjects having read no more than five books or manuals. (See Table 13)

Membership in Clubs or Organizations with Outdoor Interests

The researcher was interested in knowing to what extent outdoor

Table 13

Numbers of Outdoor Education Related Books or Manuals Read by Study Subjects

Numbers of Books or Manuals Read	Number of Subjects (N = 87)	Percentage
None	13	14.9
1 - 5	48	55.2
6 - 10	10	11.5
more than 10	15	17.2
no response	1	1.1
Totals	87	99.9*

*Varies from one hundred percent due to rounding error.

education teachers involved themselves in clubs or organizations, (outside of the school), which have specific interests in the out-of-doors. Slightly over one-third had held such memberships during the past five years. The group most heavily involved in this regard was the junior high school group where fifty percent were so involved. Elementary and senior high participation was about one-third.

Youth groups (including Boy Scouts, Girl Guides, Cubs, 4-H clubs and Junior Forest Wardens), were most frequently cited and involved about one in six subjects. Other organizations included wildlife and conservation societies, organizations devoted to such outdoor recreations as hiking and skiing, natural history clubs, and fish and game associations. (See Table 14)

Table 14

Subject Membership in Organizations Having Outdoor Interests

Has Held Membership in Outdoor Oriented Group During Last Five Years	Number of Subjects (N = 87)	Percentage
Yes	30	34.5
No	55	63.2
No Response	2	2.3
Totals	87	100.0

Amount and Kinds of Outdoor Education Activity Done by Study Participants

Outdoor education projects can be divided into two basic categories. Those projects which are complete in part or all of a

school day and those which involve at least one night in a camp or residence setting. This study shows that in terms of total numbers of projects and extensiveness of participation, day trips were the most widely pursued form of outdoor education. More than eighty percent of study subjects had participated in day trips and of these, over half had been involved in more than three such activities. In spite of increased difficulty associated with extended kinds of outdoor education, the majority of study subjects, (about eighty-three percent) indicated having had at least one experience with one or the other of the two types of extended outdoor education shown in Table 15. Among extended approaches the one least utilized by teachers appears to be the outdoor residence school but even so, more than half of subjects have had at least one experience in this kind of project.

Few differences were notable among elementary, junior and senior high school with respect to day trip activity. About the same proportions maintain for each level in each response category. Responses do vary, however, where category two, (weekend and overnight activity) is concerned. Eighty-three percent of the senior high group reported having had one or more experiences of this variety. Approximately half of the elementary and junior high groups have been involved in some weekend or overnight activity.

Only about seventeen percent of senior high teachers indicated any involvement in a residence outdoor school. Projects of this type involved just under half of junior high school subjects and about sixty percent of the elementary sample.

Table 15

Amounts of Various Outdoor Education Activities

Type of Activity	Not Done (N = 87) %	One Activity (N = 87) %	Two or Three Activities (N = 87) %	More than Three Activities (N = 87) %	No Response (N = 87) %	Totals
Trips during school day	16.1	6.9	23.0	50.6	3.4	100.0
Weekend/overnight trips	34.5	16.1	23.0	16.1	10.3	100.0
Residential outdoor educational school	41.4	18.4	23.0	9.2	8.0	100.0

Organization of Outdoor Education Activity

Periods of Year When Most Activity Occurs

Over eighty percent of teachers surveyed indicated that they were most active during the spring months of April, May and June. Only two of fifty-nine elementary teachers answered differently and they claimed to be active at all times of the year as did one each from the junior and senior high school groups. Similarly, one teacher from each of the junior and senior high school levels indicated foremost activity in the months from September to December while about one-quarter of these subjects cited fall and spring as periods of equal activity. Table 16 shows when most outdoor activity occurs.

Teachers considered weather to be a limiting factor with respect to pursuit of outdoor education, especially during the winter months. Following are the comments of some in this regard:

> Weather conditions in winter months are a limiting factor unless clothing and extra facilities are available.
>
> Weather plays a major role with this decision.
>
> Mostly in nice weather due to a lack of equipment for winter activities.

Other interesting views relating to the time of year in which outdoor activity is pursued were these:

> It is unfortunate that spring is the time for outdoor education because much of the social value in outdoor education is lost when school closes for the summer, right on the heels of the program.
>
> Because of the amount of planning required for major outdoor projects, spring is the only time they can be carried out. Planning for our program takes from September to June.
>
> The semester system means major projects in the fall

Table 16

Periods of Year When Most Outdoor Activity Occurs

Period of Year	Number of Subjects (N = 87)	Percentage
(a) September to December	2	2.3
(b) January to March	1	1.1
(c) April to June	72	82.8
a & b above	0	0.0
a & c above	6	6.9
b & c above	1	1.1
a & b & c above	4	4.6
No response	1	1.1
Totals	87	99.9*

*Varies from one hundred percent due to rounding error.

and spring if every student is to have an equal opportunity to enjoy outdoor education.

Proportion of Instructional Time Spent in the Out-of-Doors

Almost three-quarters of the teachers included in this study anticipated spending at least the equivalent of four instructional days in the out-of-doors during the term in which the study was made. About one-third expected to be out-of-doors from four to six days and an additional third, more than ten days. Between these two groups, was a group consisting of approximately one-tenth of subjects who felt that their involvement would extend from seven to nine days. Only about one-fifth of all study participants suggested that their outdoor activity would not exceed a total of three days. (See Table 17)

Table 17

Proportion of Instructional Time Spent in the Out-of-Doors

Number of Days	Number of Subjects (N = 87)	Percentage
1 - 3 days	19	21.8
4 - 6 days	28	32.2
7 - 9 days	10	11.5
More than 10 days	26	29.9
Cannot say	3	3.4
No response	1	1.1
Totals	87	99.9*

*Varies from one hundred percent due to rounding error.

Differences among levels were quite apparent in this portion of the questionnaire. Junior and senior high school teachers split fairly evenly between the first and fourth response categories. About one-third of each of these groups placed themselves among those spending one to three days away from the school. On the other hand, almost forty percent of junior high and fifty percent of senior high school teachers were included among those expecting to have ten or more days of involvement.

Concerning time spent out-of-doors the following comments were made:

> Our school would prefer to spend as much time as possible out-of-doors. It depends upon how much money we can find to finance our programs.
>
> Lengthy outdoor stays are inappropriate at this level. (a primary teacher)
>
> Time is spent out-of-doors during everyday periods as well as in the program which takes place during the spring.

Outdoor Education and the Curriculum

The interdisciplinary nature of outdoor education is illustrated by the fact that a large number of curricular areas are included in outdoor education activities. Of fourteen curricular areas, presented in the questionnaire only one, Foreign Languages, was seen to be totally unrelated to outdoor education.

Science was the curricular area stressed by the greatest majority of the teacher sample. Almost ninety percent gave science moderate or much stress within their programs. All but one junior high school teacher responded in this fashion, while ninety-five percent of elementary teachers did so. Senior high school teachers appeared to

emphasize science to a lesser extent than the other two groups. Only fifty percent of this group included science in the moderate or much emphasis category.

Physical education and social studies were stressed by about three-quarters of subjects. Better than eighty percent of elementary teachers stressed both of these areas while about sixty percent of junior high teachers emphasized them. Almost sixty percent of senior high teachers stressed physical education, but only about forty percent stressed social studies.

Five curricular areas, language arts, health, mathematics, art and reading were all stressed by about forty percent of teachers participating in the study. Elementary teachers gave all of these areas more emphasis than did teachers of the other two levels. Almost fifty percent of elementary teachers placed all of these subjects in the moderate or much emphasis category. Only health education and mathematics rated such a response by junior high teachers and none of the foregoing were stressed by more than a quarter of senior high teachers.

Forty-four percent of elementary teachers included music among curricular areas given moderate or much emphasis in outdoor education. No junior or senior high school teachers accorded music this kind of status within their program.

Home economics, spelling, industrial arts and vocational education were given little if any stress by the majority of teachers. The greatest emphasis given any of these subjects concerned home economics which was cited by one-quarter of junior and senior high school

teachers as a significant part of outdoor education.

A number of non-responses were recorded in this area of the questionnaire. In many instances these exceeded ten percent of the total study group. Concerning industrial arts, almost one-fifth of the subjects failed to indicate the degree to which it was emphasized in their program. Highest percentages of no response were associated with subjects given little or no stress in programs. This is probably a further indication of the importance accorded these areas by participating teachers. (See Table 18)

Aspects of Program Organization

Teachers were asked to indicate the importance to their programs of each of seven aspects of program organization, (see Table 19). All of these areas were considered either quite or very important by at least four-fifths of subjects. Only one aspect, "consultation with resource personnel" was considered at all unimportant and this by only about two percent of teachers.

Considered of greatest importance were preparatory activities associated with program planning and site selection. Almost one hundred percent of study participants considered these either quite or very important. Use of reference materials, follow-up of activities and evaluation were given lesser status but were nevertheless considered at least "quite important" by most study subjects. Patterns of responses in this portion of the questionnaire were approximately the same for each of the elementary, junior and senior high school levels.

About one-third of study participants attached written comments

Table 18

Degree to Which Individual Curricular Areas are Stressed in Outdoor Education

Curricular Area	Giving Little or No Emphasis (N = 87) %	Giving Moderate or Much Emphasis (N = 87) %	No Response (N = 87) %	Totals
Science	8.0	88.6	3.4	100.0
Phys. Ed.	18.4	77.1	4.6	100.1*
Social Studies	17.2	73.6	9.2	100.0
Language Arts	43.7	43.7	12.6	100.0
Health	46.0	43.7	10.3	100.0
Mathematics	48.3	42.5	9.2	100.0
Art	48.3	42.5	9.2	100.0
Reading	50.6	39.2	10.3	100.1*
Music	61.0	29.9	9.2	100.1*
Home Economics	69.0	17.2	13.8	100.0
Spelling	75.9	10.3	13.8	100.0
Industrial Arts	71.3	11.5	17.2	100.0
Vocational Ed.	77.1	9.2	13.8	100.1*
Foreign Languages	86.3	0.0	13.8	100.1*

*Varies from one hundred percent due to rounding error.

Table 19

Importance of Various Organizational Aspects of Outdoor Education As Rated by Participants in this Study

Organizational Aspect	Considered Not at All Important (N = 87) %	Considered Not too Important (N = 87) %	Considered Quite Important (N = 87) %	Considered Very Important (N = 87) %	No Response (N = 87) %	Totals
Pre-planning and preparation with students	0.0	0.0	9.2	89.7	1.1	100.0
Consultation with resource personnel	2.3	13.8	51.8	29.9	2.3	100.1*
Use of reference materials (books)	0.0	9.2	46.0	41.4	3.4	100.0
Pre-investigation of site and/or facilities	0.0	0.0	17.2	81.7	1.1	100.0
Planning intended activities	0.0	0.0	12.6	86.3	1.1	100.0
Follow-up of expedition in classroom with students	0.0	11.5	41.4	46.0	1.1	100.0
Evaluation of a project	0.0	11.5	41.4	46.0	1.1	100.0

*Varies from one hundred percent due to rounding error.

to this part of the questionnaire. Many of the comments related to planning. Typical of them are the following:

> We found pre-planning essential from a discipline point of view.
>
> . . . extremely careful and detailed planning absolutely necessary.
>
> . . . complete schedule of activities vital for a smoothly run camp.

The importance of program follow-up and evaluation are illustrated below, as are the difficulties encountered in doing these effectively:

> Follow-up activities have been our greatest difficulty though we have not decreased their importance. What we need in this area are guides to appropriate worthwhile follow-ups and sensible evaluation procedures.
>
> Evaluation of an expedition is very difficult especially if one places high priority on student-student, student-teacher interaction. Social skills gained and social relationships which spring up on the expedition cannot be measured.
>
> Outdoor education gains are hard to evaluate in terms of academic achievement.

Some comments of a more general nature are also worthy of note:

> Its not a program if all aspects are not completed.
>
> A large difference exists between rating these things highly and putting them into effect.
>
> I consider the actual doing the most important. I'd like to make the out-of-doors a natural happening, a way of life not to be over-intellectualized.

Sites Used for Outdoor Education Activities

Semi-natural sites of one form or another, rated the highest total percentage of use, (slightly over forty percent) of those

choices included in the questionnaire. (See Table 20) Semi-natural sites included those of a developed nature such as church camps, government camp sites and resort areas, as well as those of an undeveloped nature including ravines, marshes, woodlots, etc. Developed, semi-natural sites were chosen number one by twenty-seven percent of subjects while undeveloped semi-natural sites were given similar status by about fourteen percent. About half of all teachers included these two areas among the four most used outdoor education sites.

The school grounds themselves were among the four sites chosen by about thirty-seven percent of subjects. Slightly better than half of this proportion of junior and senior high school teachers gave it a similar position.

Conservation areas, (such as Provincial and National Parks), appeared to be employed slightly less than school grounds by the total study sample but were favored by the majority of subjects at the junior and senior high school levels. Wilderness areas were likewise cited by a substantial number, (about sixty-seven percent) of senior high teachers as among the four most commonly used areas but were employed to only a small extent by elementary and junior high teachers.

Outdoor schools were given "most used" status by only about one-tenth of all subjects but appeared among the four choices of about one-quarter of the study participants at all levels. "Museums and historical sites," and the "community adjacent to the schools" were also included among the four choices of about twenty-five percent of subjects, although they were not placed highly by teachers at any

Table 20

Sites Used for Outdoor Education Activities

Sites	Percentage of First Choices (N = 87)	Percentage of Second Choices (N = 87)	Percentage of Third Choices (N = 87)	Percentage of Fourth Choices (N = 87)	Percentage of No Choices (N = 87)	Totals
Developed Sites (semi-natural)	27.6	12.6	3.4	3.4	52.9	99.9*
Undeveloped Sites (semi-natural)	13.8	17.2	12.6	10.3	46.0	99.9*
School Grounds	17.2	5.7	8.0	5.7	63.2	99.8*
Conservation Areas	11.5	11.5	6.9	4.6	65.6	100.1*
Outdoor Schools	11.5	2.3	5.7	8.0	72.5	100.0
Wilderness Areas	4.6	9.2	5.7	6.9	73.6	100.0
Museums, Historical Sites	3.4	5.7	9.2	6.9	74.7	99.9*
Community Adjacent to School	1.1	10.3	8.0	5.7	74.7	99.8*
Mines, Forest Harvesting Sites (outdoor commercial)	0.0	6.9	4.6	4.6	84.0	100.1*
Factories, Food Processing Plants (commercial, indoor)	0.0	2.3	6.9	2.3	88.6	100.1*
Urban Environment	0.0	1.1	4.6	2.3	92.0	100.0

*Varies from one hundred percent due to rounding error.

level.

Other sites shown in Table 20 were employed to a very minor degree in programs with which study personnel were associated. No important differences appeared to be present among levels where these sites were concerned.

Objectives and Outcomes of Programs

Outdoor Education Objectives

In preparing the questionnaire, a list of sixty-three outdoor education objectives was derived from related periodical literature. In order to simplify the rank-ordering of outdoor education objectives on the questionnaire itself, four categories of objectives were derived, (see questionnaire, Appendix A). Teachers were asked to rank these from one to four according to the importance they felt was attached to them in their own program. (See Table 21)

The only one of the four classes of objectives which clearly ranks below the others is that labelled "recreational." This category received the smallest percentage of first choices and the highest percentage of fourth choices. Overall, only about one-third of the sample gave these objectives a first or second choice.

Teachers were somewhat polarized with respect to the second family of objectives, "formal instructional." While these were chosen first by over a third of subjects, an almost identical percentage considered them least important of the four. The total percentage of second and third choices given this category was the lowest of any in the study.

Table 21

Priorities of Four Categories of Outdoor Education Objectives

Category of Objectives	Percentage of First Choices (N = 87)	Percentage of Second Choices (N = 87)	Percentage of Third Choices (N = 87)	Percentage of Fourth Choices (N = 87)	Percentage of No Response (N = 87)	Totals
Recreational	14.9	16.1	24.1	42.5	2.3	99.9*
Formal Instructional	38.0	9.2	14.9	35.6	2.3	100.0
Environmental	25.3	38.0	27.6	6.9	2.3	100.1*
Personal-Social	19.5	34.5	31.0	12.6	2.3	99.9*

*Varies from one hundred percent due to rounding error.

Objectives relating to environmental awareness, concern and preservation appear important to teachers. Although this group of objectives was given first choice by only about a quarter of study participants, it commands a high percentage of second choices and a very low percentage of fourth choices. Almost two-thirds of subjects gave this category first or second place status.

Personal-social objectives follow a pattern similar to that of environmental objectives but with a lower proportion of first and second choices and a higher proportion of third and fourth choices.

Here, some differences appeared with respect to educational levels included in the study. About half of junior and senior high school teachers included recreational objectives among their first and second choices while only about one-fifth of elementary teachers gave this category a first or second choice. Formal instructional objectives were given fairly high status by elementary and junior high personnel but were placed fourth by two-thirds of high school teachers. Over fifty percent of elementary and senior high respondents gave personal-social objectives first or second place choices but only a quarter of junior high people did likewise. Uniform distributions among the three levels maintained only where environmental objectives were concerned.

A number of teachers were reluctant to prioritize these objectives. Nearly a tenth wrote that all were considered vital concerns of their programs.

Outdoor Education Outcomes

This portion of the questionnaire attempted to isolate those

outcomes of outdoor education which are most and least apparent in programs with which study participants are associated. From a list of fifteen possible outcomes, teachers were asked to select the three most apparent and the three least apparent outcomes. The results are summarized in Table 22.

Overall findings suggest that "personal growth in such areas as cooperativeness, judgement and responsibility" was the most apparent outcome, followed closely by "pupil concern for the environment." Both of these outcomes were chosen by more than forty percent of the study sample. Receiving choices as most apparent in about one-third of cases were "improved student capacities for interpersonal living" and "vitalized the curriculum and made it more meaningful to students."

The four outcomes cited were agreed upon by a large proportion of teachers at all levels. In general, these outcomes were clearly differentiated from the other possible choices. The outcome "has given students increased skills with respect to outdoor recreation," was chosen by only about one-fifth of all subjects but was as frequently chosen by junior and senior high teachers as the previously mentioned four.

The three least apparent outcomes were also fairly clearly indicated in study findings and again agreement among teacher levels was general. Considered least apparent was "increased pupil appreciation for their cultural heritage," which was selected by over half of all participating teachers. Nearly forty-five percent chose "has brought home and school closer together" and about thirty percent included "has facilitated greater integration of diverse elements of

Table 22

Outcomes of Outdoor Education Activities

Outcome	Considered Among Three Most Apparent Outcomes (N = 87) %	Considered Among Three Least Apparent Outcomes (N = 87) %	Not Given Either Status (N = 87) %	Totals
Increased pupil concern for environment	40.3	2.3	57.5	100.1*
Has brought home and school closer together	4.6	44.8	50.6	100.0
Has improved pupil capacity for gaining knowledge through use of environmental resources	16.1	8.0	75.9	100.0
Has vitalized the curriculum and made it more meaningful to students	33.3	16.1	50.6	100.0
Has given teachers additional insights into child growth and development	8.0	16.1	75.9	100.0
Has improved student capacities for interpersonal living	35.6	5.7	58.7	100.0
Has improved pupil capacity for appreciation of aesthetic elements of nature	13.8	12.6	73.6	99.9*
Has resulted in better use of educational resources existing beyond the school	13.8	11.5	74.7	100.0

*Varies from one hundred percent due to rounding error.

Table 22 (continued)

Outcome	Considered Among Three Most Apparent Outcomes (N = 87) %	Considered Among Three Least Apparent Outcomes (N = 87) %	Not Given Either Status (N = 87) %	Totals
Has made students more self-reliant in their pursuit of learning	5.7	17.2	77.1	100.0
Has given students increased skills with respect to outdoor recreation	19.5	17.2	63.3	100.0
Has provided additional motivation for the underachieving child, or additional challenge for the gifted learner	23.0	12.6	64.4	100.0
Has increased pupil appreciation for their cultural heritage	3.4	55.2	41.4	100.0
Has facilitated greater integration of diverse elements of the curriculum	6.9	29.9	63.2	100.0
Has facilitated personal growth in such areas as cooperativeness, judgement and responsibility	42.6	1.1	56.4	100.1*
Has afforded opportunities for children otherwise unable to do so to enjoy outdoor recreation	16.1	18.4	65.6	100.0

*Varies from one hundred percent due to rounding error.

the curriculum" in their selection of least apparent outcomes.

Factors Affecting Outdoor Education Programs

Teachers were asked to identify those factors which facilitated or were liabilities to the development of programs in their schools. From a list of sixteen possibilities, they were asked to select three each of facilitating factors and liabilities. (See Table 23)

More than half of study teachers listed "availability of sites for desired activities" as the primary facilitator of their program. About forty percent of subjects gave similar status to "acceptance of program by students," and slightly more than one-third included "acceptance of the program by the administrative staff of the school," in this category. No differences among grade levels were noticeable with respect to factors facilitating outdoor education.

The greatest liability was "availability of time to do pre-planning and conclude arrangements for projects." This factor was selected by better than fifty-six percent of subjects. Slightly over forty percent considered "availability of funds to carry out a program" to be a liability and about one quarter selected "availability of special equipment" and "ease of freeing students and teachers where timetables are concerned." Agreement among levels was general, although senior high school subjects appeared more hampered by timetable concerns and less by equipment problems than did teachers at other levels.

About one-sixth of subjects included written comments with this portion of the questionnaire. Over half of these asserted that those factors identified as liabilities did not seriously affect the

Table 23

Factors Affecting Outdoor Education Programs

Factors	Considered Among Three Most Facilitative Factors (N = 87) %	Considered Among Three Greatest Liabilities (N = 87) %	Not Given Either Status (N = 87) %	Totals
Availability of sites for desired activities	55.2	11.5	33.3	100.0
Availability of adequate transportation	14.9	11.5	73.6	99.9*
Acceptance of the program by the community	27.6	6.9	65.6	100.1*
Acceptance of the program by the administrative staff of the school	34.5	1.1	64.4	100.0
Availability of funds to carry out a program	11.5	40.3	48.3	100.1*
Availability of teaching resources (films, texts, resource books) to supplement outdoor teaching	4.6	16.1	79.4	100.1*
Availability of support personnel (supervisors, instructors, camp staff)	10.3	16.1	73.6	100.0
Legal problems arising from removal of children from school	1.1	12.6	86.3	100.0

*Varies from one hundred percent due to rounding error.

Table 23 (continued)

Factors	Considered Among Three Most Facilitative Factors (N = 87) %	Considered Among Three Greatest Liabilities (N = 87) %	Not Given Either Status (N = 87) %	Totals
Acceptance of program by students	40.3	1.1	58.7	100.1*
Availability of time to do pre-planning and conclude arrangements for projects	2.3	56.4	41.4	100.1*
Availability of special equipment (such as archery equipment, etc.) for recreational learning during projects	8.0	27.6	64.4	100.0
Ease of freeing students and teachers where timetables are concerned	8.0	26.4	65.6	100.0
Degree of preparation for outdoor teaching (ease in unstructured setting, outdoor knowledge)	12.6	11.5	75.9	100.0
Personal willingness to assume extra responsibility for pupil welfare	17.3	4.6	78.1	100.0
Degree of acceptance of the program by the central administration	13.8	11.5	74.7	100.0
Degree of personal committment to the belief that outdoor education has superior potential as an instructional approach	21.8	3.4	74.7	99.9*

*Varies from one hundred percent due to rounding error.

viability of their program. Most of the other comments related to program arranging, (planning), and financing which appear to present problems difficult to overcome in many instances.

Summary of Questionnaire Findings

The following points summarize main questionnaire findings:

1. Seven-tenths of teachers surveyed were males. The ratio of males to females was highest at the junior high level where fifteen out of sixteen respondents were males.

2. Most study participants were fairly new to the teaching profession. Almost sixty percent were in their first seven years of teaching.

3. The biggest proportion of subjects did some teaching at the upper elementary and grade seven levels. Teachers of primary and high school grades constituted the lowest proportions.

4. Science, physical education and social studies, (in that order), were the teaching majors associated with most study teachers. Teachers of art, French, industrial arts, music and vocational education comprised the lowest proportion of subjects.

5. Almost thirty percent of study participants perform professional duties other than teaching. The largest proportion of these were school administrators. About one-third of those performing extra duties acted on professional committees, councils, or facilitated the work of colleagues at the school or system level.

6. Informal means such as contact with colleagues or experiences arising from personal interests account for the introduction of

most teachers to outdoor education. Few cited efforts of superiors as initiating their interest.

7. Only about one-fifth of study teachers had credit courses in outdoor education taken at a university or college. About half had engaged in workshops or professional development courses and about one-third had completed non-credit, extension or special interest courses related to outdoor education.

High school teachers were best prepared with respect to college or university courses while junior high school subjects had taken the highest number of non-credit, extension, or special interest courses. The "Alberta Hunter Training Course" was the most frequently cited course of this type.

8. Periodicals relating to outdoor education were subscribed to or regularly read by about one-quarter of teachers in the study.

9. About eighty-five percent of subjects had read at least one outdoor education related book or manual. Almost a third had read more than six such publications. Senior high teachers did the most of this kind of reading followed by junior high and elementary teachers.

10. During the past five years, slightly over one-third of study participants had held membership in a club or organization with specific interests in the out-of-doors. Fifty percent of junior high school subjects were so involved while elementary and senior high teachers paralleled overall study findings. Associations were generally with youth-oriented groups such as Boy Scouts, Girl Guides or 4-H.

11. Activities of a day or less in duration were most common. Over eighty percent of study participants reported at least one such

experience and over half reported three or more.

Slightly over eighty percent had had at least one extended experience but only a small proportion of teachers had pursued extended outdoor education three or more times.

In the area of extended outdoor education, high school teachers reported the greatest proportion of weekend or overnight trips while elementary teachers were mostly involved in residence school projects. Junior high teachers were involved to about the same extent in each type of extended activity.

12. About four-fifths of subjects cited the months of April, May and June as a period of heightened outdoor activity. Approximately one-quarter of junior and senior high school teachers claimed equal activity in the fall and spring months. Less than ten percent of overall subjects indicated equal activity at all times of the year.

A number of teachers suggested that weather related concerns and the need for extensive project preparations limited their activity to the spring months.

13. Just under seventy-five percent of teachers included in this study anticipated spending the equivalent of four instructional days in out-of-doors during the term in which the study was made. About one-third expected to be out-of-doors from four to six days and an additional third more than ten days. Both junior and senior high school teachers were split fairly evenly between the first choice, (one to three days) and the fourth choice (more than ten days).

14. The curricular area most stressed in outdoor education appears to be science. About ninety percent of subjects answered

in this fashion. Physical education and social studies were stressed by about three-quarters of subjects. Areas stressed least included home economics, spelling, industrial arts and vocational education. Foreign languages were not given stress by any of the study participants.

Elementary subjects appeared to regard outdoor education as more interdisciplinary than both their junior and senior high colleagues.

15. Questionnaire responses indicated that teachers consider activity planning and preparation to be the most critical aspects of program organization. Almost ninety percent accorded each of these areas "very important" status. Slightly fewer teachers gave a similar rating to pre-investigation of site and facilities.

Fewer than half felt that use of reference materials, classroom follow-up and project evaluation deserved "very important" status, while less than a third considered it very important to consult resource personnel when planning ventures. Conversely, less than one-seventh of all subjects gave any of these areas a "not too important" rating. Only "consultation with resource persons" was given a "not at all important" rating by any teacher.

16. About one-quarter of all subjects indicated that outdoor study sites most frequently employed by them were of a developed semi-natural variety, (i.e. church camps). Slightly better than one-sixth chose the school grounds and about one-seventh selected undeveloped sites of a semi-natural variety, (i.e. ravines, marshes, etc.). About one-tenth gave conservation areas, (National or Provincial parks) or

outdoor schools, (specially equipped outdoor learning centers) as areas most extensively used. Though given primary choice by only one-twentieth of all study participants, wilderness areas were selected first by two-thirds of senior high school teachers. The community adjacent to the school, urban environment, and commercial facilities such as factories or mines appear to be least used among potential outdoor education sites.

17. Almost forty percent of study participants considered formal instructional objectives to be most important in outdoor education. Some polarization occurs here, however, as an almost equal proportion considered these objectives least important. Given a high percentage of first or second choices among four categories of objectives was that category which related to environmental awareness. Personal-social objectives were considered only slightly less important than environmental objectives while objectives relating to the development of recreational skills were considered least important.

18. Two potential outcomes of outdoor education, "has facilitated personal growth in such areas as cooperativeness, judgement and responsibility" and "increased pupil concern for the environment" were considered among the three most apparent outcomes by approximately forty percent of study participants. About one-third felt that outdoor learning experiences improved student capabilities for interpersonal living and made the curriculum more vital and meaningful to students.

Considered among the three least apparent outcomes by the greatest proportion, (over half) of study participants was "has

increased pupil appreciation for their cultural heritage." About one-third or more included "has brought home and school closer together" and "has facilitated greater integration of diverse elements of the curriculum" among the three least apparent outcomes.

19. Over half of all study participants considered availability of sites for desired activities to be among the three factors most facilitative of their own program of outdoor education. Given similar status by more than a third of subjects was "acceptance of the program by the administrative staff of the school." Slightly more than one-quarter cited acceptance of the program by the community.

The greatest hindrance, (included among the three least facilitative factors by over half of teachers) appears to be availability of time to do pre-planning and conclude arrangements for projects. Over forty percent included "availability of funds to carry out a program," in this category while just over one-quarter felt they were hampered in their efforts by shortages of necessary equipment or complications caused by school timetables.

Chapter V

Interview Feedback from Key Personnel in Programs Studied

This chapter will present data gathered during interviews with key personnel in the thirty-two outdoor education programs included in this study. The purpose of this portion of the research was to gather information of an administrative nature to augment curricular and teacher concerns revealed by questionnaire. Though interviews were conducted with representatives of three levels of school functioning, (elementary, junior and senior high) information will for the most part be reported collectively. This for reasons similar to those given at the beginning of Chapter Four. However, where separate reporting of levels might shed significant light on findings, they will be reported individually.

Teacher Participation in Outdoor Education

A school's decision to include a program of outdoor education in its curricular offerings does not necessarily indicate participation or commitment on the part of all teachers. About one-third of those interviewed indicated that less than twenty percent of the staff with which they were associated were outdoor education participants. High participation (eighty-one to one hundred percent) occurred in about one quarter of programs. The highest amount of total school participation seems to occur at the elementary level, where half of subjects reported participation of sixty percent or better. Conversely, high schools and junior high schools which have outdoor programs appear to

have a considerably lower level of total staff participation. Table 24 shows staff participation in programs.

Table 24

Degree of Staff Participation in Programs Studied

Degree of Participation	Elementary Programs (N = 18) %	Junior High Programs (N = 7) %	Senior High Programs (N = 7) %	All Programs (N = 32) %
1% - 20%	16.7	42.9	71.4	34.4
21% - 40%	16.7	28.6	28.6	18.8
41% - 60%	27.8	14.3	0.0	18.8
61% - 80%	11.1	0.0	0.0	6.3
81% - 100%	27.8	14.3	0.0	21.9
Totals	100.1*	100.1*	100.0	100.2*

*Varies from one hundred percent due to rounding error.

Teachers are perceived to have a variety of reasons for not participating in outdoor education. Slightly over one-quarter of program representatives ascribed other teacher's non-participation in outdoor study to beliefs that such education does not relate to their subject areas. About one-quarter felt that other teachers consider outdoor education frivolous or are just not interested. Slightly under one-fifth felt that many teachers who might otherwise be interested are hampered in their involvement by family or other responsibilities. Teacher insecurity about leaving classroom was cited by approximately thirteen percent of subjects. (See Table 25)

Table 25

Perceived Reasons for Teacher Non-participation

Reason	Number of Subjects Citing Reason (N = 32)	Percentage
Belief that outdoor study irrelevant to particular area of curricular concern	9	28.1
Consider outdoor education frivolous or just not interested	8	25.0
Other areas of responsibility prevent participation	6	18.8
Insecure about leaving classroom	4	12.5
Health concerns	1	3.1
Declined to state a reason	4	12.5
Totals	32	100.0

Non-participating teachers are nonetheless subjected to disruptive effects of outdoor education. Timetables are reordered, pupils are absent from classes and teaching assignments are reshuffled to cover those away. In spite of this only one half of those interviewed felt that even one of their colleagues was antagonistic toward outdoor education. A number of areas which were somewhat upsetting to non-participating teachers were however identified. Foremost among these was timetable disruption, cited by just under forty percent of subjects. About thirty percent indicated that pupils missing classes was a source of colleague annoyance. About one-sixth felt that other staff members were upset because of non-inclusion in the program while an additional eighth felt that some hard feelings arose because reluctant colleagues felt pressured to get involved. Disruptive effects of outdoor education are shown in Table 26.

Pupil Participation in Outdoor Education

Most subjects felt somewhat less confident of estimates of pupil participation than of teacher participation and about one-fifth considered their estimate quite conservative. Approximately one-third placed pupil participation at eighty to one hundred percent of maximum. Total figures tend to parallel teacher participation except that extremes of maximum and minimum are reversed.

Proportions of participating students in elementary programs is slightly above that of teachers in the area of maximum participation. Junior and senior high school programs tend to involve a considerably smaller proportion of the student body than do elementary schools but here again proportions of student participation exceeds that of

Table 26

Disruptive Effects of Outdoor Education

Reason	Number of Subjects Citing Reason (N = 32)	Percentage
Timetable Disruption	12	37.5
Pupils Missing Classes	10	31.3
Non-inclusion in Program	5	15.6
Pressures Due to Others' Involvement	4	12.5
Lack of Appreciation or Support for Efforts by Superiors	1	3.1
Totals	32	100.0

teachers. Table 27 summarizes pupil participation in programs studied.

Table 27

Degree of Pupil Participation in Programs Studied

Degree of Participation	Elementary Programs (N = 18) %	Junior High Programs (N = 7) %	Senior High Programs (N = 7) %	All Programs (N = 32) %
1% - 20%	16.7	14.3	28.6	21.9
21% - 40%	5.6	42.9	42.9	18.8
41% - 60%	16.7	28.6	28.6	21.9
61% - 80%	5.6	0.0	0.0	3.1
81% - 100%	55.6	14.3	0.0	34.4
Totals	100.2*	100.1*	100.1*	100.2*

*Varies from one hundred percent due to rounding error.

Seventy-five percent of those interviewed indicated a definite grade level focus for their program. Among elementary subjects, over eighty percent considered grade six to be the focal point of their program. Small percentages placed the focal point of programs at grades four and five. None felt that any of the primary grades were focal points although the majority of elementary subjects indicated some activity in grades one, two and three. Junior high school programs appear to function about equally at each of the grades seven, eight and nine levels while high school programs appear most active at the grade eleven and twelve levels.

All of the senior high programs were described as totally optional, (in a curricular sense) as were two of the seven junior high

programs. Almost four-fifths of the elementary and half of the junior high programs were considered compulsory. About one-fifth of those teaching in junior high indicated that their programs contained optional as well as compulsory components.

In over sixty percent of programs, pupils participated in outdoor education only during days when school would normally be in session, (not on weekends or holidays). No program reviewed operated only on non-school days. About thirty-eight percent operated on both school and non-school days. All but one of the thirty-two programs was described as co-educational and that exception contained both co-educational and non-co-educational components.

Pupils at all grade levels appear generally receptive to outdoor education. Two-fifths of all subjects reported witnessing no strongly negative reactions from pupils during outdoor experiences. A similar proportion indicated that such reactions from pupils were seen only rarely. Only one-eighth suggested that ten percent or more of their pupils had reacted poorly toward outdoor education.

Medical concerns appear to be the largest single reason for pupils opting out of outdoor education opportunities. Over one-third of subjects gave this as a reason. Parent concerns such as fear for the safety of the child, lack of belief in outdoor education or worry about the co-educational nature of programs was cited by a similar proportion of the interview group. Pupil-related reasons such as lack of interest in outdoor education, fear of being away from home, and modesty were also suggested by about one-third of subjects. About twenty-five percent suggested that other commitments such as music

lessons, exams and sports events prevented some students from participating. Lesser reasons given were financial problems and a fear on the part of teachers that certain students may be a threat to themselves or their peers. (See Table 28)

Relating opting out to grade level, it appears that most students in elementary grades are denied participation because of medical problems, parent fears or other commitments. Older students tend to opt themselves out due to a lack of interest or are prevented from participating because of such things as part-time work or sports involvements. In spite of the large variety of barriers to participation only a small proportion of eligible students, (less than ten percent), at any level were reported as non-participants.

Slightly more than one-quarter of subjects felt that pupils who react negatively to outdoor study do not fully appreciate the educational significance of such ventures. They apparently anticipate a fun experience instead of expecting to work and learn as in a classroom. About one-sixth of subjects attributed lack of pupil cooperation to disinterest concerning some aspects of the program. Homesickness or inability to cope with the rigours of outdoor education were each considered prime contributors to pupil unrest by about one-eighth of program representatives. (See Table 29)

Outdoor Education and the Community

One half of those interviewed perceived parent interest in their program to be moderate. Rather than labelling parent interest low, just over one-fifth described parent reaction as indifferent and one-eighth declined to give an estimate in numerical terms.

Table 28

Perceived Reasons for Student Non-participation

Reason	Number of Subjects Citing Reason (N = 32)	Percentage
Medical Problems	12	37.5
Parent Concerns (Safety of child, co-educational nature, validity of outdoor education)	11	34.4
Pupil Concerns (Lack of interest, fear of being away from home, modesty)	11	34.4
Other Commitments (Sports, exams, part-time employment, etc.)	8	25.0
Financial	2	6.3
School Concern that Student May be a Threat to Self or Others	1	3.1
Totals	45*	140.7*

*High totals due to multiple responses by some subjects.

Table 29

Perceived Reasons for Pupil Negative Reactions to Outdoor Education

Reason	Number of Subjects Citing Reason (N = 32)	Percentage
Don't Fully Appreciate Educational Implications of Outdoor Study	9	28.1
Lack of Interest Regarding Some Aspects of the Program	5	15.6
Reaction to the Vigorous Demands of the Program	4	12.5
Homesickness	4	12.5
Tendency Toward Unruliness	2	6.3
Declined to State a Reason	8	25.0
Totals	32	100.0

Study participants offered several reasons for dissatisfaction on the part of the minority of parents who chose to question the school's outdoor education program. The most frequently stated reason, (given by about one-third of those interviewed), related to parents questioning the validity or necessity of outdoor education. Many program representatives attributed this to lack of understanding of their program or to parent beliefs that outdoor education is beyond the scope of the school. Approximately one-sixth of persons interviewed felt that parents reacted negatively to outdoor education because of fears for child safety or because they were uncertain the child would be properly supervised while away. Costs involved, time away from other classes, and religious concerns were represented to a minor degree among causes of parent dissatisfaction. Most subjects stressed a high degree of parent support as a positive aspect of their program and a large proportion (almost sixty percent) did not mention any sources of parent discontent.

Parents appear to have been directly involved to some extent in most of the programs studied. Only seven of the thirty-two subjects stated that parents had had no direct involvement in their program. (Six of these were programs conducted at the high school level.) Twenty-eight percent described this involvement as extensive. About one-fifth in each instance described direct parent involvement as very little or moderate. A number of subjects stressed that parent involvement could be higher if required and that many interested parents are prevented from participating in outdoor projects because of employment or home responsibilities.

Eleven kinds of parent involvement, direct and indirect, were mentioned by subjects. Foremost among these was supplying needed equipment or funds. Just over ninety percent cited this as an example of parent involvement. About two-thirds mentioned having used parents to transport students or supplies and about fifty-six percent said they had employed parents as supervisors on outdoor education ventures. Just over one-third of subjects indicated some use of parents as camp staff, (nurse, cook, etc.). In one-quarter of programs parents had assisted in fund-raising ventures. To a lesser extent, parents had functioned as instructors, co-ordinators of projects, preparing materials, (instructional and facilitative), and in site selection and program evaluation. Kinds of parent involvement in programs are shown in Table 30.

In addition to parent involvement, many programs make fairly extensive use of the greater community. Instructional resource persons, (forestry personnel, industrial representatives, outdoorsmen, etc.), supervisory personnel and camp staffs are some areas in which the human resources of the community have been used in outdoor education. Material needs such as program funds, equipment transportation and study sites have also been obtained with the help of the greater community.

Programs appear to be most dependent on community resources in the area of acquisition of study sites. All programs rented or were granted use of sites owned by individuals, groups, (i.e. churchs), or the general public. (One program had acquired a tract of land expressly for its own use and intends to develop this area for study

Table 30

Parent Involvement in Programs Studied

Type of Involvement	Number of Subjects Citing Involvement (N = 32)	Percentage
Provision of Funds or Equipment	29	90.6
Transport of Pupils or Supplies	20	62.5
Supervision of Projects	18	56.3
Camp Staff (Cook, Nurse, etc.)	12	37.5
Fund Raising Activities	8	25.0
Preparation of Materials to be Used in Projects	3	9.4
Instruction	2	6.3
Program Coordination	2	6.3
Program Evaluation	1	3.1
Site Acquisition	1	3.1
Totals	96*	300.1*

*High totals due to multiple responses by some subjects.

purposes in the near future.) Twenty-eight of the thirty-two programs had used as resource personnel, volunteer or paid instructors. Volunteer or salaried camp staff including cooks, lifeguards and nurses have been employed in seventy-five percent of programs as was loaned or rented equipment. Fifty percent of programs had relied on the community for paid or volunteer supervisors. About one-third of programs had received financial support in the form of donations or price cuts on camp supplies from individuals or community merchants. Not including charter carriers, two of the programs had used helpers other than parents for transportation of students and supplies. (See Table 31)

Twenty-five percent of subjects labelled as extensive, community involvement, (actual participation in study events), in their current program. About one-fifth termed such involvement moderate. The remaining fifty-six percent felt that direct community involvement occurred to a limited extent or not at all in their program. Of all services rendered by the community to outdoor education programs studied, approximately two-thirds were without cost to schools involved.

Program Planning and Organization

Planning and organization of outdoor education programs usually involves several people within a school. Just under three-quarters of subjects described their program's approach to planning and organization as being a combination of individual teacher and team work. Only in one-quarter of cases were these tasks described as the responsibility of a single individual. Of the twenty-three programs where teaming occurred, eight combined efforts of teachers from more than one school.

Table 31

Involvement of Community Members Other than Parents in Outdoor Education Programs

Type of Involvement	Number of Subjects Citing Involvement (N = 32)	Percentage
Provision of Study Sites		
(a) Not Paid for	30	93.8
(b) Paid for	21	65.6
Instruction Resource Persons		
(a) Volunteer	24	75.0
(b) Paid	4	12.5
Camp Staff		
(a) Volunteer	4	12.5
(b) Paid	16	50.0
Equipment		
(a) Free loan	18	56.3
(b) Rented	6	18.8
Supervisors		
(a) Volunteer	11	34.4
(b) Paid	5	15.6
Financial Help		
(a) Service Clubs or Community Leagues	2	6.3
(b) Private Individuals or Merchants	8	25.0
Transportation (voluntary)	2	6.3
Totals	151*	472.1*

*High totals due to multiple responses by some subjects.

In just one of the thirty-two cases, planning and program arrangements had been made by a system superior, not in the school.

Pupils were given opportunities to input directly into curriculum content planning in nine of the thirty-two programs surveyed. In about three-fifths of programs they could exercise an indirect influence by making choices among study alternatives or by reviewing with teachers tentative study plans.

In areas not relating to curricular content planning, students were afforded considerable opportunities to make choices. In fifty percent of cases students were allowed to opt for portions of the total curriculum while ignoring others. In about one-third of cases pupils helped to determine non-study components of programs such as organization of camps. Participation in site selection was a privilege extended students in five of the thirty-two programs. One-eighth of programs allowed pupil choices concerning membership in study groups. To a lesser extent such things as camp timetables, organized free time activities, travel routes and methods of content presentation were student determined. Only in about twenty-eight percent of cases did students not appear to be given choices in program organization apart from curriculum content planning. (See Table 32)

In the area of curriculum content planning, the grade level of the program appears to have little bearing on the freedom of students to participate. In program organization apart from this aspect however it appears that elementary students are given the least freedom of choice. Eight of the nine programs in which student choices were

Table 32

Pupil Input Into Program Organization Apart from Curricular Content Planning

Areas Where Choices Given	Subjects Citing Choice Area (N = 32)	Percentage
Curriculum Content to be Studied	16	50.0
Organization of Non-study Components (i.e. camp organization)	11	34.4
Site Selection	6	18.8
Membership in Study Group	4	12.5
Camp Timetable	3	9.4
Free Time Activities	3	9.4
Travel Routes	2	6.3
Methods of Content Presentation	1	3.1
No Choices Given	9	28.1
Totals	55*	172.0*

*High totals due to multiple responses by some subjects.

not extended were elementary programs.

In all but one of the thirty-two programs in this study, heavy reliance was placed upon teacher prepared curricular materials. Of these, ten programs utilized materials developed by other teachers employed within the same school system and five employed curricular materials compiled by teachers in other systems. Five programs made use of the "Hunter Training" program prepared by the Alberta Provincial Government. A small proportion of programs, (three) made extensive use of commercially prepared outdoor education materials, or those supplied by the Alberta Department of Education and other governmental agencies.

Seventy-five percent of those interviewed mentioned use of a formal study guide prepared beforehand, usually by participating teachers. A similar proportion laid stress upon studies occurring before and after outdoor ventures. Only in two programs was there no mention of formal study guides nor any indication of pre- and post-excursion work.

Pupil Transport

The problem of transporting pupils has been overcome in several ways by those programs surveyed. Just over eighty percent of those interviewed mentioned use of transport facilities owned by or contracted to the school system in which they were employed. Private charter carriers were used in about forty percent of programs and one-quarter utilized parents or members of the community. One-eighth of programs maintained their own pupil transport or had exclusive use of a privately owned facility. About two-thirds were subsidized by their

school systems to meet expenses incurred in pupil transport. (Types of pupil transport are shown in Table 33.)

Table 33

Types of Pupil Transport Employed in Programs Studied

Type of Transport	Number of Subjects Citing Use of Transport (N = 32)	Percentage
System Transport (Carriers maintained by or contracted to system)	26	81.3
Commercial Charters	13	40.6
Private Vehicles	8	25.0
Transport Owned or Used Exclusively by School	4	13.5
Transport Owned by Another School	1	3.1
Totals	52*	163.5*

*High totals due to multiple responses by some subjects.

Locating and Securing Sites

In all but one of the programs reviewed, appropriate study sites for most projects were located and arranged for by school personnel. Ten of the subjects mentioned receiving some help from the school system in locating sites but only seven indicated that the system was instrumental in securing these sites. In the case of five programs utilizing the "Alberta Hunter Training" program, government assistance was obtained in site selection. One individual mentioned receiving

student or parent help in locating and securing sites. Just over two-thirds of those interviewed indicated a practise of thoroughly examining a site before using it for study purposes.

Funding of Programs

Securing of adequate funds appears to be one of the most significant problems facing outdoor education practitioners. Over one-half of those interviewed considered this to be a problem as did numerous questionnaire subjects. All but two of the thirty-two programs visited get some funds from parent or student subscription. The stated amounts of such contributions ranged from twenty-five cents (for short duration, local projects), to thirty dollars or more for extended trips. The average amount for an extended trip appeared to be about ten dollars and this figure was most often mentioned by subjects. Over half felt that short day trips taken in connection with their program resulted in fees of less than one dollar being levied.

The second most popular method of obtaining monies appears to be fund raising projects, such as sales or drives. Just under one-half of program representatives indicated having used this approach. Twelve of the thirty-two programs were financed at least in part by system outdoor education grants, (not including transportation grants), and eleven of the subjects mentioned having received government grants such as those given out by the Alberta Department of Culture, Youth and Recreation. In one-eighth of programs, all of them junior high or high school programs, some of the monies budgeted for such subject areas as science and social studies, were used to offset

outdoor education costs. A small minority of programs used special education grants, teacher subscription and donations from service clubs or community associations to meet expenses. Table 34 presents sources of outdoor education program funds.

Subjects were asked to estimate a range in which their total program expenses would fall in any given year. Fifteen of thirty-two felt that a figure between zero and one thousand dollars would be accurate though all but two of these indicated that the figure would be at least three hundred dollars. One-eighth of those interviewed felt the level of their expenditure would be between three and four thousand dollars. Three subjects cited figures of between two and three thousand dollars while one each gave estimates of five to six thousand and seven to eight thousand dollars. Just under one-fifth hestitated to give estimates but felt that their programs would cost several hundred dollars annually. (See Table 35)

Over eighty-five percent of those interviewed mentioned pupil transport as a significant expenditure within their program. Large sums, often in excess of fifty percent of the total cost of a project were spent for bus charters or to operate privately owned vehicles. In many instances schools were reimbursed for these expenses or they fell within pupil transport budgets established by school systems. (Transportation and other outdoor education costs are summarized in Table 36.) Such costs did, however, add to total operating budgets of almost all programs.

A second major area of expenditures mentioned was pupil accommodations. About three-fifths of program representatives mentioned

Table 34

Sources of Outdoor Education Program Funds

Source of Funds	Number of Subjects Citing this Source (N = 32)	Percentage
Parent or Student Subscription	30	43.8
Classroom or School Fund Raising Drives and Sales	15	50.0
System Grants Especially for Outdoor Education (not including transportation grants)	12	37.5
Government Grants	11	34.4
Instructional Budget	4	12.5
Special Education Grants	2	6.3
Donations from Service Clubs or Community Associations	2	6.3
Teacher Subscription	1	3.1
Totals	77*	240.8*

*High totals due to multiple responses by some subjects.

Table 35

Estimated Annual Expenditures of Programs Studied

Range of Expenditure (In Dollars)	Number of Subjects Citing Range (N = 32)	Percentage
0 - 999	15	46.9
1000 - 1999	2	6.3
2000 - 2999	3	9.4
3000 - 3999	4	12.5
4000 - 4999	0	0.0
5000 - 5999	1	3.1
6000 - 6999	0	0.0
7000 - 7999	1	3.1
No Estimate	6	18.8
Totals	32	100.1*

*Varies from one hundred percent due to rounding error.

Table 36

Ways in Which Funds were Expended in Programs Studied

Areas of Expenditure	Number of Subjects Citing Area (N = 32)	Percentage
Pupil Transport (Bus charters, expenses of private vehicles, etc.)	27	84.4
Pupil Accommodations (Rental of camps, motel units, guest ranches, etc.)	19	59.4
Purchase of Food and Expendable Camp Supplies (i.e. camp fuel, medical supplies, etc.)	16	50.0
Equipment Rentals (i.e. tents, canoes, etc.)	12	37.5
Salaries (Camp cooks, lifeguards, bus drivers, etc.)	6	18.8
Miscellaneous (Admission to parks, repair or replacement of equipment, etc.)	4	12.5
Totals	84*	262.6*

*High totals due to multiple responses by some subjects.

costs related to rental of privately owned camps, motel units or guest ranches. In several instances these expenditures were the largest within a program. Many such accommodations, however, provided totally for student needs including food, recreational equipment, camp staff and shelter in one package.

One-half of subjects cited the purchase of food and camp expendables, (camp fuel, first aid supplies, etc.), as a major expense. For those whose programs involved tent camping or wilderness study these items frequently matched or exceeded transportation costs. Twelve of the thirty-two programs spent some monies to rent such things as canoes or camping equipment. Just under one-fifth of program representatives mentioned salaries to such persons as lifeguards, bus drivers, camp cooks and extra camp supervisors as being significant expenditures. Less significant expenditures included such things as admissions to National Parks and repair or replacement of lost or damaged equipment.

Just over two-fifths of those interviewed stated that the program with which they were associated was attempting to secure an inventory of outdoor education equipment. (This might be considered an added cost of outdoor study but is in a somewhat different category than other expenses shown. Firstly, expenditures for such equipment are often made only once. Secondly, equipment purchased for outdoor education, (i.e. compasses, magnifying glasses, archery sets), can often be used in other subject areas such as science or physical education and can therefore be considered usual instructional items.)

Securing Equipment for Projects

Outdoor education participants obtain needed study equipment in a number of ways. Over ninety percent of subjects mentioned using equipment drawn from their own inventory of outdoor education supplies or those study materials normally found in schools. A similar number cited loans of equipment from parents or friends and relatives of teachers and students. Twenty of the thirty-two program representatives indicated that many required materials were on hand at the camps or outdoor facilities used in programs and that access to these items was included in site agreements. Just over one-third of programs rented some needed equipment and six of the thirty-two relied upon student ingenuity in improvising study tools.

Where the borrowing of equipment from other than home or school occurred, several sources were cited. (See Table 37) Eleven programs had obtained equipment from institutions such as universities or government agencies and an identical group was able to draw on equipment inventories maintained by the school system's central administration. Approximately one-fifth obtained equipment from other schools and an additional one-eighth of subjects secured equipment from organizations including Boy Scouts and the Y.M.C.A. Three programs made use of equipment available through the Alberta Hunter Training Program and two were able to obtain study aids from commercial concerns at no cost to themselves. Seventeen of the thirty-two programs described outdoor education equipment needs as modest. Twelve persons interviewed described these needs as fairly extensive and three described them as very extensive.

Table 37

Sources of Equipment Used in Outdoor Education Programs

Equipment Source	Number of Subjects Citing Source (N = 32)	Percentage
School Owned	30	93.8
Home or Community Owned	30	93.8
On Hand at Camp or Outdoor Facility Used	20	62.5
Rented	12	37.5
Student Made	6	18.8
Borrowed		
(a) From an Institution or Government agency (i.e. university)	11	34.4
(b) From Central Administration	11	34.4
(c) From Another School	7	21.9
(d) Organization (i.e. Boy Scouts or Y.M.C.A.)	4	12.5
(e) In Conjunction with Alberta Hunter Training Program	3	9.4
(d) From a Commercial Concern	2	6.3
Totals	136*	425.3*

*High totals due to multiple responses by some subjects.

Broad Aims of Programs Studied

Study subjects were asked to identify what they considered to be the broad general aims of their programs. Most cited three or four such aims. In total, twelve categories of aims were identified. (See Table 38)

Twenty of the thirty-two persons interviewed, identified "social growth" or increased student ability to get along with others as a program aim. Nineteen cited "increased awareness, appreciation, understanding and concern for nature and the environment." Noteworthy about the latter is the fact that it rated first mention by over one-third of subjects. A third group of general aims receiving considerable mention might be termed "culmination of classroom studies." Included here are such notions as relating learning to living, application of previously learned material and reinforcement of skills needed to acquire knowledge. These types of aims were cited by fourteen of the thirty-two program representatives.

Three additional categories of aims were mentioned by about one-quarter of those interviewed. These included "learning to use the environment for recreational purposes," "improved teacher-pupil relations" and "provision of opportunities to enjoy the outdoors for those who may not otherwise have such opportunities."

Receiving mention in less than ten percent of cases were such objectives as "development of character," "encouraging self-reliance," "development of a healthy self-concept," "provision of highly challenging personal experience," "increasing knowledge of other parts of the province," "strengthening survival skills" and "increased quality of

Table 38

Broad Categories of Program Aims as Perceived by Interview Subjects

Category of Aims	Number of Subjects Citing Category (N = 32)	Percentage
Social growth (learning to live with others)	20	62.5
Increased awareness, appreciation, understanding and concern for the environment	19	59.4
Culmination of classroom studies (application of previously learned material, relating learning to living, reinforcing learning skills)	15	46.9
Learning to use out-of-doors for recreational purposes	9	28.1
Improved teacher-pupil relations	8	25.0
Providing opportunities to enjoy outdoors for those otherwise not able	7	21.9
Character development (self-reliance, endurance of hardships, respect for property)	3	9.4
Development of outdoor survival skills	2	6.3
Increased knowledge of Alberta	1	3.1
Increased quality of student work	1	3.1
Improved self-concept of students	1	3.1
Provision of highly challenging personal experiences	1	3.1
Totals	87*	271.9*

*High totals due to multiple responses by some subjects.

student work."

Evaluations of Programs

One-quarter of subjects made no mention of the application of formal evaluation techniques to the programs with which they were associated. Those describing formal evaluation, cited a number of approaches. One-half of the thirty-two programs used measures of pupil mastery of the outdoor education curriculum to partially guage the effectiveness of programs. Approximately two-fifths of the total group relied, at least in part, on an examination of pupil assignments completed during outdoor projects. Subjective pupil questionnaires, either system or school developed, were used by forty percent of all subjects and about one-fifth used parent questionnaires similar to those given to students. In twenty-five percent of cases, formal teacher meetings were organized to assess programs and determine their effectiveness. (See Table 39)

All thirty-two subjects mentioned use of subjective evaluation techniques headed by observation of pupils engaged in learning activities and assessment of casual pupil feedback. Parent feedback, often unsolicited, was considered a useful measure by six of the thirty-two programs. Thirty representatives stated that a great proportion of their evaluation of projects was subjective rather than objective. None of the thirty-two were of the opinion that program objectives were not being met and most were highly enthusiastic concerning their programs.

Table 39

Techniques Employed in Evaluating Outdoor Education Projects

Technique	Number of Subjects Citing Use of Technique (N = 32)	Percentage
I. Formal Evaluation		
(a) Testing of Pupils on Content of Outdoor Education Curriculum	16	50.0
(b) Examination of Pupil Assignments Completed During Outdoor Projects	13	40.6
(c) Pupil Questionnaires		
1. School Developed	10	31.3
2. System Developed	4	12.5
(d) Parent Questionnaires	6	18.8
(e) Formal Evaluation Meetings Conducted by Teachers	8	25.0
(f) No Formal Evaluation	8	25.0
II. Informal Evaluation		
(a) Observation of Pupils at Work and Assessment of Casual Feedback	32	100.0
(b) Casual Feedback from Parents	6	18.8
Totals	103*	322.0*

*High totals due to multiple responses by some subjects.

Problem Areas Related to Outdoor Education

When asked to identify problems arising from or associated with outdoor education, subjects cited two or three sources of difficulty for themselves and their programs. These responses have been placed in nine categories which will be discussed in this section of Chapter Five. Table 40 summarizes problem areas.

Seventeen of the thirty-two program representatives felt that securing sufficient funds was one of their program's foremost concerns. Of the seventeen, seven mentioned this problem ahead of all others. No other area of difficulty received first mention by as many persons.

Judging by the fact that securing program adjuncts such as study sites, equipment and transportation was mentioned by just under one-half of subjects, this too rates as a major hindrance to outdoor study. A breakdown of this area shows that nine of thirty-two programs had difficulty securing sites while four and two respectively found it hard to arrange for equipment and transportation.

Program planning was cited as a large concern by fourteen of the thirty-two subjects. Six of these gave it as a first concern. Stressed frequently was the problem of planning programs, (with their vast array of detail), in the limited time normally available for such planning.

Just over forty percent of those interviewed indicated that teacher-related concerns were areas of difficulty for the program with which they were associated. Five of the thirteen persons in this group felt that many teachers are not adequately prepared to work in outdoor education and thus are not able to assist pupils in deriving

Table 40

Areas of Concern Related to Pursuit of Outdoor Education

Area of Concern	Number of Subjects Citing Area (N = 32)	Percentage
Financing of Program	17	53.1
Availability of Program Adjuncts (i.e. sites, equipment, pupil transport, etc.)	15	46.9
Program Planning	14	43.8
Problems Relating to Teaching Staff (i.e. teacher preparation for outdoor teaching, attitudes of non-participant colleagues, etc.)	13	40.6
Concerns Relating to System Expectations, Attitudes of Superiors, Routines of School Operation (i.e. inflexibility of timetables, "red-tape," etc.)	11	34.4
Problems Relating to Pupil Reactions (i.e. supervision of pupils, student disinterest, pupil difficulty in adjusting to out doors, etc.)	10	31.3
Communicating Program Aims to Parents and Gaining Their Interest and Support	6	18.8
Securing Adequate Support and Resource Personnel	3	9.4
Weather Related Concerns	1	3.1
Totals	90*	281.4*

*High totals due to multiple responses by some subjects.

maximum benefits from outdoor study. An additional five felt that attitudes of fellow teachers not included in the program were a hindrance to them and their program. Two felt that excessive demands made upon teachers in camp situations was a concern and one felt that inability of some teachers to modify teaching strategies to those appropriate to the out-of-doors was a problem.

Roughly one-third of subjects cited problem areas relating to system expectations, attitudes of superiors or routines of school operation. Of the eleven individuals stating problems associated with this category, three indicated that the inflexibility of school timetables compromised the effectiveness of their program. Two were unhappy about the degree of system red-tape and the lack of freedom they encountered in devising their programs. Two felt that they had been granted insufficient away-from-school time to properly pursue outdoor studies and a similar number perceived a lack of interest in or support for their efforts among superiors. Over-structuring of the program was seen to be a problem by one individual as was failure by the school system to attach a clear priority to outdoor education.

Pupil responsibility, attitudes and reactions toward outdoor education appear to constitute a set of concerns for some practitioners of outdoor education. One-half of the ten who indicated problems in this area cited supervision of pupils especially in a co-educational setting as one of their program's main difficulties. Motivating pupils in the out-of-doors was a concern of two programs. One subject in each case mentioned as problems, pupils opting out and student difficulty in adjusting to the out-of-doors.

Just under twenty percent of study subjects stated that communicating program aims to parents and securing their assistance was a problem. Three of thirty-two had difficulty securing camp staff or study resource persons and one of the total group felt hampered by the weather.

Possible Approaches to the Solution of Outdoor Education Problems

Subjects suggested a number of possible approaches to the solution of outdoor education problems. Among these were solutions involving increased program financing, modifications to the design of programs, revision of attitudes toward outdoor education by educational decision makers and initiation of practises within schools or school systems to facilitate outdoor study. (See Table 41)

Increases in monies available for outdoor education were considered necessary by about one-third of program representatives. Provision of more grants such as those now available through the Department of Culture, Youth and Recreation, were suggested as was greater community participation in the financing of programs. One individual contended that school systems ought to channel more funds into outdoor education which can benefit the majority of students and less money into expensive vocational education programs which serve relatively few. As a single solution, provision of more money was more often proposed than any other.

About two-thirds of subjects had a suggestion or suggestions as to ways schools and school systems could modify their operating procedures in order to better facilitate outdoor education. Of the twenty-two offering ideas in this vein, eight felt that provision of

Table 41

Suggested Solutions for Outdoor Education Problems

Solution	Number of Subjects Citing Solution (N = 32)	Percentage
Provision of Additional Funds to Programs	11	34.4
More Inservice and Better Preparation of Teachers for Outdoor Instruction	8	25.0
Provision of More Study Equipment and More and Better Learning Sites	8	25.0
Provision of Substitute Teachers for Those Planning or Carrying out Programs	8	25.0
Educational Hierarchy Adopt a Clear Stand on Outdoor Education and Assign it a Clear Priority Position	7	21.9
Provision of More Support Staff for Projects	4	12.5
More Effective Presentation of Outdoor Education to the Community	4	12.5
Better Planned Programs	4	12.5
More Freedom From Red-tape	3	9.4
More Exchange of Ideas Between and Among Programs	2	6.3
More Flexible Time-tabling	2	6.3
Totals	61*	190.8*

*High totals due to multiple responses by some subjects.

more in-service opportunities or chances for teachers to upgrade outdoor education competencies would be at least a partial solution to program difficulties. Eight felt that substitute teachers should be provided so that participating teachers could be released to plan programs and that similar help should be forthcoming to occupy a teacher's position in the school time-table when that teacher was instructing away from the school. System provision of more outdoor study equipment and more and better study sites, (owned and maintained by systems), were the suggestions of an additional eight subjects. Four persons felt that systems should provide more support staff or camp personnel during projects, three contended that more freedom from red-tape is necessary and two were of the belief that more flexible time-tabling would allow them to improve their programs.

Solutions relating to program design were tendered by eleven of the thirty-two persons interviewed. Of these, four felt that program designers have to make more provision for public involvement in projects or must strive more strenuously to communicate program objectives to the community. This would hopefully result in greater public interest in and support for programs. Similarly, two persons felt that more complete communication of ideas among programs would have a strengthening effect upon outdoor education.

Two individuals expressed the opinion that outdoor education needs to shake its "outing from the school" image and offer a more challenging curriculum. One person tendered the notion that lacking clearly defined philosophies or aims and objectives, many programs are indefensible within the sphere of legitimate school activities and

therefore must tend to these concerns or risk deletion from instructional programs. More lead-up and follow-up work is needed to strengthen programs was the opinion of one subject as was the idea that outdoor programs need to be less academically oriented so that pupils will be more motivated concerning outdoor work.

Just under one-quarter of those interviewed contended that the educational hierarchy from the school to the Minister of Education must enunciate a clear position with respect to outdoor education. The feeling of this group is that because of the uncertainty of its status and the silence of superiors, outdoor education appears largely to be ignored by those in education whose decision making powers are strong. As a consequence, practitioners wonder whether or not their efforts are being regarded as a boon or a hindrance to educational progress. In addition, official recognition of outdoor education especially at high levels would likely result in its being accorded a priority position in Alberta education. This may result in the availability of more program resources such as funding or study sites.

Planned Changes to Programs

When asked what changes were planned concerning their programs, twenty of the thirty-two subjects indicated that their programs would remain basically as constituted unless external factors, (such as financial problems), forced major modifications. Most felt that their programs required only refinement and expressed the hope that further expansion would be the only real change. Thirteen of the thirty-two indicated definite plans for expansion which would result in more projects with more pupil participants at more sites and during more

seasons of the year. Two subjects, both senior high people, indicated plans for independent study options with outdoor orientations. One each revealed planned increases in use of outside resource people and teacher in-service. (See Table 42)

Table 42

Planned Changes to Programs Studied

Nature of Change	Number of Subjects Citing Change (N = 32)	Percentage
No Planned Changes Only Refinement or Necessitated Changes	20	62.5
Definite Plans for Expansion of Program to Include More Pupils, Sites, Seasons	13	40.6
More Study Options with Outdoor Orientation	2	6.3
More Use of Resource People	1	3.1
More Teacher In-service in Outdoor Education	1	3.1
Totals	37*	115.6*

*High totals due to multiple responses by some subjects.

Summary of Chapter Five

1. Only about one-quarter of subjects indicated involvement of eighty to one hundred percent of the teachers in the school in which their program operated. About one-third indicated that such involvement was less than twenty percent. A higher percentage of teacher involvement occurred in elementary than junior or senior high schools.

2. Teachers were perceived, (by those interviewed), to have a variety of reasons for non-participation. Foremost among these were: failure to associate outdoor education with subject(s) taught, lack of belief or interest in this approach, other involvements such as home responsibilities, and insecurity about leaving the classroom.

3. Even non-participating teachers in a school where outdoor education is going on are subjected to some of its effects, (i.e. timetable disruption, pupils missing classes, reshuffled teaching assignments). In spite of this only one-half of those interviewed felt that any of their colleagues were strongly antagonistic to this teaching approach. The most upsetting effect, (cited by about two-fifths of respondents), was timetable disruption. Pupils missing classes was considered almost as great an annoyance, (cited by ten of thirty-two). About one-eighth, each, cited non-inclusion in the program or pressure to get involved as further sources of colleague concern.

4. About one-third of those interviewed placed pupil participation in their program at eighty to one-hundred percent of maximum. Just over one-fifth placed it at twenty percent or less. Elementary programs studied generally showed a higher degree of student participation than junior or senior high programs.

5. Seventy-five percent of the interview group felt their programs had a grade level focus. Among elementary representatives over eighty percent considered it to be grade six. No elementary person felt that their program focussed on any of the primary grades although most mentioned some activity at these levels. No particular grade level focus was mentioned by junior high subjects while those

from high schools mentioned grades eleven and twelve about equally.

6. All seven high school subjects and two of seven from junior high considered their programs optional in a curricular sense. Over eighty percent of those from elementary school and two of the remaining five from junior high labelled theirs compulsory. The balance of those from elementary and junior high indicated that their programs contained both optional and compulsory aspects.

7. In over half of programs studied, projects occurred only on days when school would normally be held. No program scheduled projects only on weekends or holidays. Just under two-fifths operated on both school and non-school days.

8. All but one program was described as co-educational and that one had both co-educational and non-co-educational components.

9. Two-fifths of all subjects reported witnessing no serious negative reactions by any students during outdoor work. A similar number reported seeing such behavior very infrequently. One-eighth indicated that ten percent or more of their pupils had reacted negatively at times.

10. Medical problems was given as the reason for pupils opting out of outdoor study by one-third of those interviewed. A similar proportion cited parent concerns such as fear for student safety, lack of belief in outdoor education or worry about the co-educational nature of camps. Another third gave pupil-related reasons such as lack of interest, modesty, and fear about leaving home. Other student commitments, (i.e. music lessons, sports), was given by about one-quarter of subjects. Lesser reasons were financial concerns or teacher fears that

some students would be a threat to themselves or others. Most elementary non-participants miss because of parent concerns or medical problems while older students miss because of disinterest or other commitments. Non-participation by those eligible at any level, and in any program was estimated at less than ten percent.

11. Sources of pupil negativism during outdoor study were considered to be: Lack of pupil appreciation for the serious aims of outdoor education, (about one-quarter of subjects), disinterest concerning parts of the program, (cited by about one-sixth), and homesickness or inability to cope with rigorous outdoor work, (each by about one-eighth of subjects).

12. Half of those interviewed felt parent interest in programs to be high, about one-sixth considered it moderate and one-fifth rated parent reactions as somewhat indifferent. The greatest assumed source of parent dissatisfaction, (suggested by one-third of respondents), is lack of understanding or belief in outdoor education. Fears for child safety, costs involved and time away from other classes were reasons offered by small proportions of subjects. Most subjects stressed a high degree of parent support as a positive aspect of their program and almost sixty percent did not mention any perceived sources of parent discontent.

13. Some type of parent involvement occurred in all but three of the thirty-two programs studied. In twenty-five programs, parents actually participated to some extent in outdoor projects. Twenty-eight percent of all subjects labelled parent participation in programs as extensive and about one-fifth in each instance labelled it

moderate or low.

14. The most common form of assistance forthcoming from parents was the supplying of needed program funds or equipment, (cited by over ninety percent of subjects). About two-thirds mentioned parent transport of pupils or supplies and just over one-half indicated use of parents as supervisors of students. Parents also functioned as camp staff, assisted in fund-raising drives, working as instructors, helped to prepare project materials, aided in selecting sites and provided project evaluations.

15. All programs made use of sites owned by private individuals, groups, (i.e. churches) or the general public. This was the foremost way in which the general public assisted in the functioning of programs studied. Twenty-eight of the thirty-two programs used as resource personnel, volunteer or paid instructors. Volunteer or salaried camp help, (i.e. nurses, cooks, lifeguards), were employed in seventy-five percent of programs as was loaned or rented equipment. About one-half of programs used volunteer or paid supervisors drawn from the greater community. Other community assistance came in the form of money and transportation. Direct community involvement, (actual participation in projects), was termed "extensive" by twenty-five percent of subjects, "moderate" by about one-fifth and "limited" by about fifty-six percent. About two-thirds of community rendered services were described as voluntary.

16. Just under three-quarters of those interviewed described program planning as a combination of individual teacher and team work. Eight programs employed the efforts of teachers from more than one

school and in another eight all work was done by one person. In one case, all arrangements and planning had been provided by a system superior.

17. Pupils were given opportunities to input directly into curriculum content planning in nine of the thirty-two programs. In approximately three-fifths, they could indirectly influence the shape of the curriculum through choosing among study alternatives. In almost three-quarters of programs, students had a voice in the planning of such non-curricular elements as camp organization, composition of study groups, free time activities and selecting study sites. Eight of the nine programs in which no student choices were extended, were elementary programs.

18. Curriculums for programs were largely teacher prepared in all but one of the thirty-two programs studied. Some sharing of curricular materials among programs and even among schools in different systems occurred. Approximately one-sixth of programs utilized the "Alberta Hunter Training" program. A small minority of subjects cited use of commercially prepared outdoor education curricula or materials supplied by the Alberta Department of Education and other governmental agencies. Almost all programs used some form of teacher-prepared study guide and laid heavy stress upon pre and post studies related to the outdoor education curriculum.

19. Most subjects, (over eighty percent) indicated that their program's transportation needs were met primarily through the use of facilities owned by or contracted to school systems in which they were employed. Private charters were used in about forty percent of

programs and parents or community volunteers in about one-quarter of cases. One eighth of programs owned and maintained their own transport or had exclusive use of a facility. About two-thirds were system subsidized.

20. In almost all cases study sites were located and arranged for by school personnel. In less than one-third of cases did school systems aid in locating or arranging sites. In five of the thirty-two programs some sites were provided in conjunction with the Alberta Hunter Training program. Just over two-thirds of those interviewed indicated a practise of thoroughly examining sites before putting them to use.

21. Over one-half of those interviewed considered the securing of funds a major program difficulty. Almost all programs derive some funds from parent or student subscription. The stated range of subscriptions was from twenty-five cents for minor projects to over thirty dollars for major ones. The average cost for major projects appeared to be about ten dollars.

Just under one-half of program representatives cited such things as drives or sales as being sources of funds. About two-fifths of programs were supported at least in part by system outdoor education grants and a similar number reported receiving grants from the Alberta Department of Culture, Youth and Recreation. Some money (especially in junior and senior programs), came from subject area budgets, special education grants, teacher subscription or service club donations.

23. About one-half of subjects felt their annual program

expenditures would amount to between zero and one thousand dollars and most of these considered three hundred dollars minimal. Just under one-fifth gave no estimate but felt that their annual costs would run into several hundreds of dollars. The highest estimate was seven to eight thousand dollars, and the range containing the second highest number of programs, (four) was three to four thousand dollars.

24. Pupil transport was the most significant area of expenditures mentioned, (by eighty-five percent of the interview group). About three-fifths cited pupil accommodations. One-half cited purchase of food or other program expendables. Other expenses (in order of numbers of subjects mentioning them) included equipment rentals, staff salaries, admissions to such places as National Parks and repair or replacement of damaged or lost equipment. Just over one-fifth of those interviewed indicated that the program with which they were associated was attempting to cut equipment costs by building up an inventory of equipment needs.

25. Over ninety percent of those interviewed mentioned that they could meet some of their equipment needs from their own inventory of supplies or by using those materials normally found in schools. A similar number obtained equipment needs from teacher or pupil contacts. About two-thirds obtained the use of equipment in conjunction with study sites. Some rented equipment and others had students make study needs. Where borrowing occurred, sources, in order of frequency of mention, included universities or government agencies, central administrations of school systems, other schools, organizations such as Boy Scouts, the Alberta Hunter Training program and commercial

establishments. Seventeen of the thirty-two described outdoor education equipment needs as modest, twelve described them as fairly extensive and three as very extensive.

25. The most frequently mentioned aim, (twenty of thirty-two subjects), was "social growth" or increased ability to get along with others. Nineteen expressed aims related to increased awareness, appreciation, understanding and concern for the natural environment. Over one-third of all subjects mentioned the latter ahead of all other aims. Just under one-half cited aims which might broadly be termed "culmination of classroom studies," (relating learning to living, applying new knowledge, reinforcing skills acquired in the classroom). Some other aims in order of frequency of mention were: "Learning to use the natural environment for recreational purposes," "improved teacher pupil relations" and "provision of opportunities to enjoy the outdoors for those who may not otherwise have such opportunities." Seven other categories of objectives were also mentioned.

26. About three-quarters of program representatives indicated that formal evaluation techniques were used to gauge the effectiveness of their programs. Foremost techniques were: Assessment of the degree of pupil mastery of the outdoor education curriculum, (about fifty percent of the total interview group), examination of student assignments done in conjunction with outdoor studies, (about two-fifths), subjective pupil questionnaires, (about two-fifths), and parent questionnaires, (about one-fifth). About one-quarter used formal teacher meetings as evaluative sessions. All subjects reported

reliance upon such subjective processes as observation of pupils at work out-of-doors and assessment of verbal student feedback. Thirty of the thirty-two subjects felt their program's evaluation was more subjective than objective. None felt that program objectives were not being met.

27. Over two dozen areas of difficulty associated with or arising from outdoor education were cited by program representatives. Over one-half felt that securing sufficient funds was one of their program's greatest concerns. This area received mention ahead of any other difficulties in more instances than any of the other concerns expressed. Second to the above was obtaining program adjuncts such as sites, equipment and transportation, (just under fifty percent of respondents). Among program adjuncts, finding appropriate sites apparently provided the greatest difficulty.

Other important areas of concern, not necessarily in order, related to lack of teacher preparation for outdoor work, attitudes of superiors and teachers not in the program, finding time to plan programs, getting around inflexible aspects, (i.e. timetables), of school operation, system red-tape, negative pupil attitudes and problems associated with keeping parents informed of program developments.

28. Subjects' suggestions concerning methods for attacking outdoor education problems were varied. One-third of the total number of subjects were of the opinion that greater availability of program funds would help to remove many of their concerns. As a single solution, this received more mention than any other.

More in-service or other means of preparing teachers to instruct

out-of-doors was cited by one-quarter of those interviewed as were mentions of more equipment and sites and provision of substitutes for those planning or carrying out projects.

Just over twenty percent were of the opinion that members of the educational hierarchy from school principal to minister of education will have to take a clearer stand on outdoor education and accord it a priority position before its problems can be overcome.

Other solutions suggested in each instance by less than one-eighth of subjects included: Provision of more support staff for projects, more effective communication of program aims and objectives to the community, better planned programs with more clearly defined purposes, greater freedom from system "red-tape," more exchange of ideas between and among programs, and more flexible school time-tabling.

28. Twenty-eight of the thirty-two persons interviewed indicated that changes to their program, (except for expansion or minor refinements) would only be made if changes in program elements, (i.e. funding, staffing, etc.) dictated that changes be made. Thirteen of the thirty-two had definite plans for expansion which would result in more projects, use of more sites and inclusion of more students. One-eighth of subjects had major modifications in mind relating to greater use of such things as resource persons and more teacher in-service in outdoor education.

Chapter VI

Summary, Observations, Conclusions and Recommendations

Purpose of the Study

Frequently, outdoor education programs are "grass roots" phenomena initiated and maintained by interested teachers. Often little is known about the objectives, design, administration and outcomes of such programs except by those associated with them. The purpose of this study was to collect and report such information. Data sought in this study pertained to:

(a) what constitutes outdoor education in Alberta,

(b) how outdoor education relates to the total school curriculum,

(c) how outdoor study is administered and how it affects the administration of other parts of the school program,

(d) what are the personal characteristics of outdoor education teachers, and

(e) what educational aims outdoor education is capable of serving and how it is evaluated.

Procedure of the Study

The assistance of the Alberta Department of Culture, Youth and Recreation was obtained in identifying twelve school administrations in which outdoor education programs had been or were being funded. These administrations were contacted and agreed to participate in the study. At this time, both questionnaires and interview schedules

needed for data collection were being prepared.

The questionnaire was intended to elicit information concerning characteristics of teachers involved in outdoor education, and how such an approach to instruction relates to school generally. It was designed and prepared with reference to periodical literature and available studies relating to this field. An initial draft was criticized by faculty and students in the University of Alberta Department of Elementary Education as well as by Dr. W. Boldt, an expert in outdoor education from the University of British Columbia. A revised version was then employed in a pilot study involving twelve teachers from three Edmonton public schools. Their reactions and comments were taken into account in the construction of the final instrument.

Originally, it was intended to interview key personnel in outdoor education programs as well as system-level personnel with responsibilities in outdoor education. The purpose of these interviews was to discover administrative aspects of outdoor education which would supplement questionnaire data and to examine system-level concerns and attitudes with respect to outdoor study. A review of available literature again helped the researcher to design appropriate instruments and criticism offered by faculty and students of the Elementary Education Department aided in their refinement. The interview schedule designed for use with key program personnel was used in the pilot study and was subsequently revised to its present form. The schedule designed for use with system-level personnel was used as originally drafted.

A study schedule was made and the study carried out during the

period April 31 to June 12, 1973. During this time, the twelve school administrations listed in Chapter III were visited and interviews and questionnaire distribution completed. One hundred and seven questionnaires were distributed and eighty-seven were returned in usable form. Thirty-two interviews involving forty-six key program personnel and eight with system-level personnel were conducted. In addition, seven outdoor education sites were visited and several days were spent observing and participating in projects.

At the conclusion of the data gathering phase of the study, the decision was made to report only questionnaire findings and those of the interviews with key program personnel. The researcher felt that these data would adequately describe the programs studied. Responses to questionnaire items were tallied and presented in tabular form. The interview tapes were analysed on three separate occasions. Then response categories were established and findings were presented similarly to those of the questionnaires.

Data was obtained from three educational levels, elementary, junior and senior high school. Most of the findings are reported collectively except for instances where differences among levels were particularly noteworthy.

Observations and Conclusions

Characteristics of Outdoor Education Teachers

Questionnaire findings revealed a number of important facts concerning the characteristics of teachers practising outdoor education. They have been summarized as follows:

1. The typical outdoor education teacher in the programs studied was male, had been teaching seven years or less and had a teaching major in science, physical education or social studies. Most of these did some teaching at the grade five, six, or seven levels.

2. The highest ratio of male to female teachers was found in junior high programs where fifteen of sixteen subjects were males. A ratio of three males to one female was found among high school subjects while the ratio was two to one in favor of males at the elementary level.

3. High school teachers were the most experienced of those surveyed. Almost half had eight or more years of experience.

4. Almost one-third of subjects performed professional duties aside from teaching, (i.e. school administration, professional committees, specialist councils, etc.).

5. Awareness of outdoor education most commonly occurred through contact with an involved colleague. A slightly smaller portion of questionnaire subjects cited first awareness as a result of an outdoor education related course or workshop.

6. Only a small proportion of subjects had any university or college level courses in outdoor education. More had taken one or more non-credit, special interest or extension courses related to outdoor teaching and half had taken part in teacher workshops or professional development courses in outdoor education. The "Alberta Hunter Training Course" was the most frequently mentioned special interest course.

7. Senior high school teachers reported the highest proportion of university courses in outdoor education. Special interest or extension

courses were reported most frequently by junior high subjects.

8. Periodicals relating to outdoor education were subscribed to or regularly read by a minority of subjects while most had read at least one outdoor education related book or manual. Almost one-third had read more than six such books.

9. Senior high school teachers did proportionately more reading of outdoor education books than junior high or elementary teachers.

10. During the past five years, slightly over one-third of subjects had held membership in a club or organization with outdoor interests. Associations were generally with youth-oriented groups such as Boy Scouts, Girl Guides or 4-H.

11. Junior high school subjects reported a higher proportion of involvement in clubs or organizations than either of the other two groups.

Characteristics of Programs Surveyed

The kinds of outdoor education being done in the twelve school administrations included in this study are indicated by the following data:

1. Science was the curricular area most stressed in programs. Receiving slightly less emphasis were physical education and social studies. Most other areas of the curriculum, (with the possible exception of foreign languages), were given some stress.

2. A small proportion of programs used the Alberta Hunter Training course as a source of curriculum content while even fewer used commercially prepared outdoor education materials, or literature supplied by the Alberta Department of Education or other governmental agencies.

3. Data gained from both questionnaire and interview subjects indicated

that elementary programs tended to be more interdisciplinary than those at higher grade levels.

4. In all but one program, outdoor education curricula were mostly teacher prepared.

5. Most programs used some form of teacher-prepared study guide and emphasized pre and post studies relating to the outdoor education curriculum.

6. Pupils were allowed to share in curriculum making in a minority of programs. In over half of programs, however, they could influence the shape of the curriculum by choosing among study alternatives.

7. Some sharing of curricular materials between schools and even between systems was reported.

8. Most of those interviewed felt that their program had a particular grade level focus. Among elementary subjects it was most commonly grade six, while in high school grades eleven and twelve were most frequently mentioned. Junior high programs appear to function equally at grades seven, eight and nine.

9. From among four categories of outdoor education objectives, the one given first priority status by questionnaire subjects related to formal instructional objectives. Receiving the second highest number of first choices were objectives relating to knowledge of and concern for the environment. Following closely was a category relating to personal-social growth.

10. Although formal instructional objectives were given first priority status by the highest proportion of questionnaire subjects, they were given fourth priority status by an almost equivalent proportion.

11. Interview subjects were asked to cite what they considered to be main objectives of their program. Most named "social growth" and objectives relating to environmental knowledge and concern. About half mentioned objectives relating to classroom studies.

12. Formal evaluation of programs was considered "very important" by less than one-half of the questionnaire subjects. This gave it a fourth place priority among seven organizational aspects of outdoor education.

13. Most of those interviewed reported that some formal means were used to evaluate their programs but almost all reported heavier reliance on informal, subjective means than on any other type of evaluation.

14. Formal means of evaluation of programs included determining the degree of student mastery of the outdoor education curriculum, examination of assignments done during projects and administration of subjective questionnaires to students and parents.

15. Informal means consisted mostly of observation of students and assessment of casual feedback from students and parents.

16. All of the thirty-two interview subjects felt that objectives of their programs were being met.

17. Four outcomes of outdoor education were judged by questionnaire subjects to be most apparent in their programs. In decreasing order of importance they were:

(a) has facilitated personal growth in such areas as cooperativeness, judgement and responsibility,

(b) has increased pupil concern for the environment,

(c) has improved student capacities for interpersonal living,

(d) has vitalized the curriculum and made it more meaningful to students.

These outcomes were distinctly set apart from several other possible choices.

18. Also distinctly separate from other outcomes were two judged to be least apparent. They were:

(a) has increased pupil's appreciation for their cultural heritage and

(b) has brought home and school closer together.

19. Thorough pre-planning of outdoor education projects was considered important by both study groups.

20. All but one of those interviewed indicated that planning of their programs was done mainly by involved teachers, either individually or in teams.

21. In a minority of cases planning teams had members from more than school.

22. In most programs students had a voice in the planning of such non-curricular elements as camp organization, composition of study groups, free time activities and selecting study sites.

23. Almost all programs where such choices were not extended were carried on in elementary grades.

24. A quarter of those interviewed placed the number of participants in outdoor education at eighty to one-hundred percent of their school's total staff. A third estimated it at twenty percent or less.

25. Higher percentages of total staff participation were reported by elementary subjects than those representing other levels.

26. About one-third of interview subjects placed pupil participation at eighty to one hundred percent of maximum. A fifth felt it was twenty percent or less.

27. Higher proportions of pupil participation were found in elementary programs than elsewhere.

28. Parents were involved to some extent in all but three programs studied. Some direct parent participation in outdoor projects occurred in most programs. A minority of interview subjects considered parent involvement to be extensive and a similar group labelled it moderate or low.

29. Four-fifths of questionnaire subjects indicated that most outdoor education in the programs studied was done during the spring months. About one-quarter of junior and senior high school subjects indicated equal activity in the spring and fall and about a tenth of all subjects indicated equal activity at all times of year.

30. Weather related concerns and the time required to plan projects were seen as factors limiting activity to spring months.

31. In the majority of programs, projects were carried out only on days when school would normally be held. None were carried out only on non-school days and a small proportion operated both on school and non-school days.

32. Projects of a day or less in duration were most common, but most questionnaire subjects had been involved in at least one project involving more than one day away from school.

33. At the elementary level, residence school projects are the commonest form of extended outdoor education while high school projects

most often involve overnight or weekend trips. Extended junior high projects are split between the two types mentioned.

34. A majority of questionnaire subjects anticipated spending at least the equivalent of four instructional days in the out-of-doors during the term in which the study was made. About one-third expected to be out-of-doors from four to six days and an additional third more than ten days.

35. Most questionnaire subjects indicated that they do most of their outdoor education in natural or semi-natural surroundings.

36. Two-thirds of high school subjects chose wilderness areas as most used sites but most elementary and junior high subjects chose developed, semi-natural sites, (i.e. church camps) or undeveloped semi-natural sites, (i.e. ravines or marshes).

37. The school grounds received mention from a minority of subjects but such places as museums, the urban environment, mines and factories appear almost totally disregarded as outdoor education sites.

38. All high school programs were described as optional, (in a curricular sense), while most elementary and junior high programs were labelled compulsory.

39. All but one program was described as co-educational and that one had both co-educational and non-co-educational components.

40. Almost all interview subjects stated that only necessitated changes, (except for expansion or minor refinements), would be made to their programs. Seen as the likeliest causes of necessitated changes were problems relating to funding or staffing of programs. Just under half had definite plans for expansion.

Administration of Outdoor Education Programs

Findings concerning some of the many aspects of outdoor education program administration are presented below.

1. Interview subjects felt that non-participation of some teachers in outdoor education stemmed mainly from:

   (a) failure to associate outdoor education with subject(s) taught,

   (b) lack of belief or interest in outdoor education,

   (c) other involvements such as home responsibilities, and

   (d) insecurity about leaving the classroom.

2. The most upsetting effect of outdoor education on school routines was felt by interview subjects to be timetable disruption. Considered almost as great an annoyance was pupils missing classes. Non-inclusion in the program or pressure to get involved were cited by a minority of subjects.

3. Only half of those interviewed felt that any of their uninvolved colleagues were at all antagonistic to outdoor education.

4. The most common reason for pupils' opting out of outdoor education was seen to be medical problems. Slightly fewer interview subjects attributed student non-participation to parent concerns for child welfare or lack of belief in outdoor education. A similar number felt that pupil-related reasons such as lack of interest, modesty, or fear of leaving home were important.

5. Most non-participation among elementary students occurs because of medical reasons or parent concerns while older students opt out because of lack of interest or other commitments (i.e. jobs, sports, music lessons).

6. Non-participation of eligible students at any level and in any program was estimated at less than ten percent.

7. Just under half of those interviewed reported seeing no negative reactions by any students during outdoor work. A small minority indicated that ten percent or more of their students had reacted negatively at times.

8. Sources of pupil negativism during outdoor study were considered to be:

(a) lack of pupil appreciation for the serious aims of outdoor education,

(b) disinterest concerning parts of the program,

(c) homesickness, and

(d) inability to cope with rigorous outdoor work.

9. Half of those interviewed felt parent interest in outdoor education to be high while small minorities considered it moderate or felt parents to be indifferent to outdoor study.

10. Most parent dissatisfaction concerning outdoor education was felt to stem from a lack of understanding or belief in outdoor education. Fears for child safety, costs involved, and time away from other classes were reasons offered by small proportions of interview subjects.

11. Most subjects stressed a high degree of parent support as a positive aspect of their program and better than half did not mention any perceived sources of parent discontent.

12. Parents most commonly assisted programs by supplying needed funds or equipment. A majority of subjects also reported using parents to

transport students and equipment, or as supervisors of groups. Parents also functioned as camp staff, fund-raisers, instructors, and program evaluators.

13. The larger community was of greatest use to programs in providing sites. The operation of a majority of programs also relied on paid or volunteer personnel drawn from the community. Other forms of community aid were financial assistance, equipment loans, and transportation.

14. A quarter of those interviewed considered direct community involvement to be extensive. A small minority considered it to be moderate, and just over half termed it limited.

15. The majority of programs relied most heavily on transportation facilities owned by or contracted to their school system. Private charters were used by less than half of programs and parents or community volunteers by about a quarter.

16. One-eighth of programs owned and maintained their own transportation or had exclusive use of a facility.

17. About two-thirds of programs had system-subsidized transportation.

18. Study sites were usually located and arranged for by program personnel. In a minority of cases, school systems helped to locate and arrange for sites. In just under one-sixth of programs, sites were provided in conjunction with the Alberta Hunter Training Program.

19. Almost all programs were able to acquire some study equipment by drawing upon their own inventories or by using materials normally found in schools. Other sources mentioned by interview subjects were loans from teacher or student contacts, equipment supplied in conjunction with study sites, rentals and pupil made items.

20. Where borrowing of equipment occurred the usual sources were:

    (a) universities or government agencies,

    (b) central administration of school systems,

    (c) other schools,

    (d) organizations, (i.e. Boy Scouts, Y.M.C.A.),

    (e) the Alberta Hunter Training Program, and

    (f) commercial establishments.

21. About one-fifth of programs indicated that attempts were being made to reduce equipment problems by building up an extensive inventory of needed items.

22. Just over half of those interviewed described equipment needs as modest. Just over a third described them as fairly extensive and a very small proportion labelled them extensive.

23. Almost all programs derived some funds from parent or student subscription. Just under half of programs used drives or sales as sources of money.

24. Student subscriptions ranged from twenty-five cents for minor projects to over thirty dollars for major ones. The average student fee for major projects appeared to be about ten dollars.

25. About half of those interviewed felt their annual program expenditures would amount to between zero and one thousand dollars and most of these considered three hundred dollars as minimal. About a quarter estimated amounts in excess of two thousand dollars. An estimate of between seven and eight thousand dollars was the highest given.

26. Pupil transport was the area receiving the largest proportion

of program monies. Other significant areas of expenditure, (in order), were:

(a) pupil accommodations,

(b) food or other program expendables,

(c) equipment rentals,

(d) staff salaries,

(e) admissions to such places as national parks, and

(f) repair or replacement of damaged or lost equipment.

27. Questionnaire subjects considered availability of sites for desired activities to be the factor most facilitative of their programs. Acceptance of the program by students, acceptance of the program by the school's administration, and acceptance of the program by the community, (in that order), were also considered highly facilitative factors.

28. Availability of time to do pre-planning and conclude arrangements for projects was considered to be the greatest liability by the questionnaire group. Availability of funds to carry out a program, availability of special equipment and ease of freeing students and teachers where timetables are concerned, (in that order), were seen as additional hindrances but to a lesser extent.

29. Over half of interview subjects mentioned securing of sufficient funds as a major program difficulty. Just under half mentioned securing program adjuncts, (i.e. sites, equipment, transportation). To a lesser extent, the following also received mention: Lack of teacher preparation for outdoor work, attitudes of superiors and others not in the program, finding time to plan programs and getting around

inflexible aspects of timetables.

30. As a single solution, it was felt that more funding would be of greater benefit to programs than any other possible measure. Interview subjects also suggested more teacher in-service, more readily available equipment and sites, and provision of substitute teachers to relieve program planners. A minority of persons in each case suggested the following:

(a) adoption of more clearly defined positions regarding outdoor education by educational authorities,

(b) provision of more support staff for projects,

(c) more effective presentation of outdoor education to the community,

(d) better planned programs,

(e) greater freedom from "red tape,"

(f) more exchange of ideas between and among programs, and

(g) more flexible school timetabling.

Implications for Practise

Many difficulties are associated with outdoor education. Teacher energy and resources were obviously taxed to a high degree in those programs visited. The following recommendations are made in the belief that their adoption would facilitate outdoor education in this province.

Recommendations for Provincial Action

1. Provincial authorities responsible for education should adopt a clear position with respect to the perceived value of outdoor education.

2. This position should be communicated to outdoor education practitioners who are in many instances uncertain as to whether or not their efforts are in line with goals and aims of Alberta education.

3. Provincial guidelines similar to those available in other curricular fields ought to be formulated for outdoor education.

4. Provincial authorities ought to take a leadership role in organizing teacher inservice or professional development courses for the purpose of upgrading teacher competencies in outdoor education.

5. Tracts of publicly owned land representing a variety of habitats, (forests, marshes, grasslands, etc.), should be developed sufficiently with roads, assembly areas, etc. to serve as study sites for growing numbers of outdoor education programs.

6. Steps should be taken to create many such sites within easy access of urban centres where competition for learning sites is becoming intense.

7. Additional grants or other forms of financial help should be made available to schools and school systems wishing to initiate or expand outdoor education programs.

8. Provincial authorities should take steps to communicate more fully with programs and to foster communication links between and among programs, (especially across system lines). This could result in:

(a) a pooling of expertise useful in formulating the guidelines referred to in point three,

(b) a sharing of curricular and administrative information of use to program planners,

(c) more coordinated and efficient use of available study sites.

Recommendations for School System Action

Most of the previously cited recommendations have their counterparts at the school system level. There are, however, additional areas of concern which are dealt with by local decision makers. Recommendations relating to these areas are as follows:

1. Recognizing the extensive amounts of planning time required and the degree of teacher responsibility for conducting outdoor education, school systems should be willing to provide "released time" or substitute teachers for those formulating or carrying out programs.
2. More consultants or resource personnel should be available to encourage and assist teachers and schools in establishing and maintaining programs.
3. Pools of equipment, (especially expensive or exotic equipment), needed in outdoor studies should be established for loan to all schools requiring it.
4. Readily accessible forms of pupil transport should be made available for studies occurring remote from school.
5. If they are not in a position to tangibly reward teachers for the extra work required in outdoor education, systems should at least offer encouragement and acknowledgement of efforts.

Recommendations for School Action

Obviously outdoor education is being facilitated at the school level. Recommendations at this level are therefore limited to these:

1. Interference with school timetables provides outdoor education with one of its most persistent concerns. Clearly required are more flexible school timetables and organizational schemes under which

students and teachers can be released from school for extended periods of time with a minimum of disruption to school routine.

2. Better communication of outdoor education aims and developments to the community is needed to overcome the parent misunderstandings seen as threats to outdoor education by some teachers.

Recommendations for Further Research

1. This study has brought to light a number of outdoor education related concerns. Some of them are financing of programs, securing of equipment and study sites, teacher preparedness for outdoor instruction, pupil transport, evaluation of programs and the impact of outdoor education on school functioning. With anticipated continuing growth of outdoor education, additional information on any or all of these concerns would be useful. A number of potential research topics relating to outdoor education problems are therefore suggested.

2. A useful survey of general teacher attitudes toward outdoor education was completed by Cowan in 1972. A similar survey of public attitudes might be useful especially in light of the fact that some persons interviewed in this study suggested that they felt that less than optimal communication existed between their program and the community.

3. Although some work has been done with respect to relating outdoor education to the school curriculum (James, 1969) more work needs to be done in this area especially in the upper grades.

4. The impact of outdoor education on the academic and personal growth of students is well documented in other areas most notably in the United States. The researcher has not yet encountered much evidence

of such investigation in Alberta.

5. A rationale for outdoor education with emphasis on philosophy, objectives and program evaluation does not appear to exist in this province. Using the abundance of information on outdoor education which is currently available in periodic literature and supplementing such findings with information to be obtained from Alberta programs, the construction of such a rationale could constitute a most worthwhile study.

6. Although it was originally the intention of this researcher to investigate the attitude of school system level personnel concerning the role and place of outdoor education, this intention was not carried through. Such a topic may well be profitably pursued in the future.

7. As a "grass roots" phenomenon in increasing magnitude, outdoor education is an interesting example of teacher initiated and disseminated innovation. Studied from this perspective, it might add new information to the field of educational administration.

Concluding Statement

Outdoor education appears to be a viable adjunct to classroom instruction in this province. In light of the high degree of teacher, pupil and community interest in outdoor education, its continued growth and expansion is likely. Its development to date, however, has been somewhat haphazard and programs are characterized by a diversity of aims, objectives and methods. It is the hope of this researcher that the information here presented will help to establish direction and shape for outdoor education in this province.

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Appendices

Appendix A

Questionnaire on Outdoor Education

QUESTIONNAIRE ON OUTDOOR EDUCATION

Although outdoor education is being pursued in an increasing number of programs throughout the province, little is generally known about how these programs function and what impact they are having upon teachers and learners. It is hoped that data gained through this questionnaire will provide answers to these and other questions concerning out-of-school learning. In addition to the researcher's interest in outdoor education, the Alberta Department of Education as well as the Department of Culture, Youth and Recreation are vitally concerned in this study and are lending it support and assistance. As an involved teacher, your support is of the greatest import and will eventually determine how fully the aims of this study are met.

IMPORTANT

1) Please try to complete the questionnaire as fully as possible and in a way most consistent with the functioning of your own program.

2) Check marks (✓) can be used unless otherwise specified and written comments need only be inserted where you consider them to be appropriate.

I would like to express my sincere gratitude for all consideration, time and effort given this questionnaire.

Thank you!

Don Risdon

A. BIOGRAPHICAL

1) Sex: Male___ Female___

2) Years of teaching experience:

0-3___ 12-15___
4-7___ 16-19___
8-11___ 20 plus ___

3) Which grade(s) are you presently teaching?

_____

4) What is your teaching major? (indicate one area only)

_____

5) Do you have any professional involvements other than teaching? (i.e. school administration, curricular associate, department head, etc.)

yes___ no___

If yes, please specify:_____

_____

6) Have you completed any of the following:

(a) credit courses in outdoor education offered at a university or college;

none___ one or two___ three or more___

(b) teacher workshops or professional development courses in outdoor education;

none___ one or two___ three or more___

(c) non-credit, extension or "special interest" courses which relate to outdoor learning, (i.e. Alberta Hunter Training Program, nature photography, taxidermy, etc.)

none___ one or two___ three or more___

Please identify non-credit, extension or special interest courses taken.

_____

_____

7) Do you subscribe to, or regularly read any periodicals related to outdoor education?

yes___ no___

8) How many outdoor education-related books or manuals have you read?

none___ 6-10___
1-5___ more than 10___

9) Within the past five years have you held membership in, or been involved with, any clubs or organizations with specific interest in the out-of-doors? (i.e. Boy Scouts, Alberta Camping Association, Conservation or Wildlife groups).

yes___ no___

If yes, please specify:_____

_____

10) How many times in the past two years have you been involved in the following out-of-doors learning situations with students?

(a) trips with classes or groups during the school day;

none___ two or three___

one___ more than three___

(b) weekend/overnight trips;

none___ two or three___

one___ more than three___

(c) residential outdoor education school;

none___ two or three___

one___ more than three___

(d) other; (please specify type and frequency)

_____

_____

11) How did you become aware of outdoor education?

___related course or workshop
___convention session
___exposure to related literature
___discussion with an educational consultant or curricular associate
___informal contact with a colleague
___other (specify)_____

_____

B. PROGRAM ORGANIZATION

12) When does most of the outdoor activity occur in your program?

September to December ___
January to March ___
April to June ___

Comments:_____

_____

13) How much instructional time do you anticipate you will spend out-of-doors this term?

1-3 days ___
4-6 days ___
7-9 days ___
more than 10 days ___
cannot say ___

Comments:_____

_____

14) In the following list of curricular subjects, check the degree of emphasis given each in your program of outdoor education.

	no emphasis or inappropriate	little emphasis	moderate emphasis	much emphasis
Art	___	___	___	___
Foreign Languages	___	___	___	___
Health Education	___	___	___	___
Home Economics	___	___	___	___
Industrial Arts	___	___	___	___
Language Arts	___	___	___	___
Mathematics	___	___	___	___
Music	___	___	___	___
Physical Education	___	___	___	___
Reading	___	___	___	___
Science	___	___	___	___
Social Studies	___	___	___	___
Spelling	___	___	___	___
Vocational Education	___	___	___	___

15) In previous organization of outdoor activities, how important have you regarded the following to be?

	not at all important	not too important	quite important	very important
1) Pre-planning and preparation in the classroom with students	___	___	___	___
2) Consultation with resource personnel or outdoor specialists	___	___	___	___
3) Use of reference materials, (books, films, slides etc.)	___	___	___	___
4) Investigation of site and/or facilities before bringing students	___	___	___	___
5) Planning the activities you intend to pursue outdoors	___	___	___	___
6) Follow-up of expedition in classroom with students	___	___	___	___
7) Evaluation of the expedition	___	___	___	___

Comments:_____

_____

_____

_____

16) From the following list of possible outdoor education sites, select up to, (but not more than), four sites which you have used most frequently in your program. Number them beginning with number 1 for the most frequently used. If you have employed some sites not listed, add them in the spaces provided, and include them in your choices.

____school grounds

____community adjacent to the school

____expanded urban environment

____museums, historical sites, art galleries or other such facilities having educational potential

____mining operations, forest harvesting sites, farms or other outdoor facilities of a commercial nature

____factories, food processing plants, or other enclosed commercial facilities

____conservation areas such as Provincial or National Parks

____wilderness areas

____church camps, government camp sites, resort areas, or other developed sites of a semi-natural variety

____ravines, wooded areas, marshes,or other readily accessible sites of an undeveloped, semi-natural variety

____areas specifically designed and equipped to function as outdoor schools

___ _____

_____

___ _____

_____

C. OBJECTIVES AND OUTCOMES

17) Below are four general categories into which can be fitted the objectives of most outdoor education programs. Read carefully the description of each category and determine its priority with respect to your program. In the space beside each statement place a number from 1 to 4 to indicate this priority. (number 1 for highest, 4 for lowest).

____Recreational; developing pupil capacities for recreational or leisure time use of the out-of-doors, (camping, hiking, canoing etc.)

____Formal instructional; using the material and human resources of the environment to tie classroom learning to reality, integrate different parts of the curriculum, or generally enhance teaching and learning in traditional subject areas.

____Environmental; increasing pupil awareness of man's relationship to the environment, and the need for environmental maintenance.

____Personal-Social; heightened capacity for social living, and the development of such personal traits as resourcefulness, dependability, and a sense of responsibility.

Comments:_____

_____

_____

18) In the list of potential program outcomes below, place an "M" beside the three you consider to be most apparent in your own program. Place an "L" beside the three you consider to be least apparent.

____increased pupil appreciation and concern for the environment

____has brought home and school closer together

____has improved pupil capacity for use of the environment in solving problems and acquiring knowledge

____has vitalized the curriculum and made it more meaningful to students

____has given teachers additional insights into child growth and development

____has improved student capacities for interpersonal living

____has improved pupil capacity for appreciation of the aesthetic elements of nature

____has resulted in better use of available educational resources existing beyond the school

____has made students more self-reliant in their pursuit of learning

____has given students increased skills with respect to outdoor recreation

____has provided additional motivation for the underachieving child, or additional challenge for the gifted learner

____has increased pupil appreciation for their cultural heritage

____has facilitated greater integration of diverse elements of the curriculum

____has facilitated personal growth in such areas as cooperativeness, judgement and responsibility

____has afforded opportunities for children otherwise unable to do so to enjoy outdoor recreation

If you feel that there are other equally significant outcomes of outdoor education, please list them below.

_____

_____

_____

_____

_____

F. FACTORS AFFECTING OUTDOOR EDUCATION PROGRAMS

19) In the following list, place an "M" beside the three factors which have been most facilitative of your own program of outdoor education. Place an "L" beside the three factors which you have considered to be the greatest liabilities.

____availability of sites appropriate for desired kinds of activities

____availability of adequate transportation to take pupils to chosen sites

____acceptance of the program by the community

____acceptance of the program by the administrative staff of the school

____availability of funds to carry out a program

____availability of teaching resources, (such as films, texts, resource books), to supplement outdoor learning

____availability of support personnel to assist in conducting programs, (such as supervisors, instructors, camp staff)

____ease of coping with legal problems arising from removal of children from school

____acceptance of program by students

____availability of time to do pre-planning and conclude arrangements for projects

____availability of special equipment, (such as archery equipment, canoes, compasses etc.) for recreational learning during projects

____ease of freeing students and teachers where timetables are involved

____degree of personal preparation, (such as ease in unstructured situations and knowledge of the out-of-doors), for conducting outdoor learning

____personal willingness to assume extra responsibility for pupil welfare while away from the school

____degree of acceptance of the program by central administration

____degree of personal committment to the belief that outdoor education has superior educational potential

Comments:_____

_____

_____

_____

Appendix B

School-Level Program Coordinator Interview Schedule

School-Level Program Coordinator Interview Schedule

1. What percentage of teachers in your school are involved in outdoor education?
2. What do you feel is the main reason some teachers do not wish to become involved in outdoor education?
3. Are you aware of any antagonism towards outdoor education among those not involved?
4. How is outdoor education most upsetting to those not involved?
5. About what percentage of your student body is involved in outdoor education?
6. Does your program focus on a particular grade level?
7. Is your program co-educational?
8. What is the main reason for pupils opting out of outdoor work?
9. What proportion of students react negatively once involved?
10. What do you feel is the main reason for pupils acting negatively toward outdoor education.
11. Is your program optional or compulsory, (in a curricular sense)?
12. On what days are most activities planned, (school days, holidays, weekends)?
13. How would you describe parent interest in your program?
14. What do you feel is the main source of parent discontent concerning outdoor education?
15. How have parents been involved in your program?
16. To what extent are parents involved in your program?
17. How has the greater community been involved in your program?
18. To what extent is the greater community involved in your program?

19. To what extent are community services voluntary?
20. How does program planning occur within your school?
21. To what extent are students allowed to participate in:
    (a) outdoor education curriculum planning?
    (b) other aspects of outdoor education?
22. To what extent are teachers responsible for preparing outdoor education curricula?
23. How is pupil transport accomplished?
24. Who bears the expense for pupil transport?
25. How are study sites located and arranged for?
26. How are necessary program funds secured?
27. What are the range of student and parent subscriptions?
28. What amount of funding is required to carry out a one year schedule of outdoor activities?
29. What are major budget areas?
30. How is necessary equipment secured for projects?
31. What are the sources of borrowed equipment?
32. How extensive are your outdoor education equipment needs?
33. What do you consider to be the broad aims of your program?
34. How do you attempt to determine whether program aims are being met?
35. How well do you feel aims are being met?
36. What do you consider to be the main problems associated with outdoor education?
37. Please suggest some steps which might be taken to ease these problems.

38. What changes do you anticipate in the program with which you are associated?

Appendix C

System-Level Administrator Interview Schedule

System-Level Administrator Interview Schedule

1. How extensive is outdoor education within the _____ school system? Can you say what percentage of schools are involved? What percentage of teachers and pupils?

2. At what levels (elementary, junior high school, senior high school), is outdoor education focussed?

3. How do you feel outdoor education is generally regarded by:
   (a) school administrators?
   (b) teachers?

4. How is the public responding to outdoor education?
   (a) parents
   (b) community interest groups, (community associations, service clubs, chamber of commerce, etc.)

5. Would you describe your central administrations' involvement in the following:
   (a) planning outdoor programs?
   (b) arranging appropriate sites for outdoor study?
   (c) providing pupil transport?
   (d) providing equipment, (canoes, compasses, etc.) necessary for outdoor education?
   (e) financing outdoor education activities?
   (f) providing teacher inservice related to outdoor education?

6. Does the central administration of this system favor any approach to outdoor education, (such as day trips, camping trips, educational tours) over other approaches?

7. Would you please attempt to describe the expectations held for outdoor education programs at the system level?

8. How successfully do you feel outdoor education programs are meeting these expectations?

9. Describe what means you have used, or are using, to evaluate outdoor education programs.

10. From your point of view, what are the main difficulties or problems associated with outdoor education?

11. Among system priorities, where do you feel outdoor education has been placed?

12. What do you think must occur if outdoor education is to assume a more significant place in future education within this system?

13. What changes concerning outdoor education may be forthcoming within this system in the forseeable future?

Appendix D

Letter Requesting Permission to Study Selected Programs

26 Menlo Crescent,
Sherwood Park, Alberta,
T8A 0R9

Dear

Information provided me by the Alberta Department of Culture, Youth and Recreation indicates that you are, or have been, involved in a program of outdoor education. I too, am interested in this instructional approach and wish to do M.Ed. research in this area. The study I am proposing will involve a travel survey of outdoor education programs funded by the Department of Culture, Youth and Recreation. I believe that you can contribute substantially to my efforts and hope that I may secure your cooperation in conducting my research.

The aim of my study will be to describe outdoor education as it is being pursued in government sponsored programs. Information sought will relate to program design and administration and the impact of outdoor education upon the school. I feel that such a study is timely because in spite of rapid growth of programs in Alberta, little is generally known concerning important developments in this field.

A study such as this could yield findings significant in the following ways:

1) As a means of alerting more people to the potential inherent in this instructional approach,

2) As a source of information for those involved in the establishment of future programs,

3) In the provision of inputs necessary for the development of teacher education programs related to the use of the environment in teaching,

4) In assisting interested persons such as those employed by the Department of Education to clarify positions with respect to outdoor education.

Intended methods of data gathering include interviews with key program personnel, administration of questionnaires to participating teachers and, if possible, visitation of outdoor learning sites. I anticipate doing field research in late April and May. It is my intention to visit, during this period, all programs which have received funding.

This study is being facilitated through funds granted by the Alberta Department of Education. Further assistance of an informational nature will be given by the Department of Culture, Youth and Recreation. Supervision and aid in research design will be provided by Department of Elementary Education personnel of the University of Alberta, notably Dr. A. MacKay, (thesis Supervisor).

My interest in this area is genuine and stems from involvement in an outdoor education program which I experienced while teaching in the province. I am appreciative of the demands made upon you as an

educator and hope that your busy schedule will permit you to help me in my endeavors. I would be most thankful if you could respond to my request for assistance by completing the attached information sheet and returning it to me at your earliest convenience.

Thank you.

Yours sincerely,

INFORMATION SHEET

1. Do you feel that you will be able to be of assistance to me in my study of outdoor education programs?

   _____ yes
   _____ no

2. If not, could you provide me with names and addresses of others who might be able to assist me in my research?

   _____

   _____

   _____

3. Telephone number where contact person may be reached. (Please state name if other than yourself.)

   _____ during business hours

   _____ after business hours

4. Correct address (if not as shown in letter).

   _____

   _____

5. Where readily available, the following program details would be appreciated:

   a. Approximate number of schools involved _____

   b. Approximate number of teachers involved _____

   c. Approximate number of pupils involved _____

   d. Grade levels served _____

   e. Subject areas stressed _____

6. Which of the following best describes your program:

   _____ day program
   _____ residence camp
   _____ travel-camp
   _____ other (specify) _____

7. Comments:

Date: _____

Signature: _____

Appendix E

Letter to Confirm Study Arrangements

26 Menlo Crescent,
Sherwood Park, Alberta,
April 18, 1973.
T8A OR9

Dear

Having completed required course work at the University of Alberta, I am now in a position to further pursue the outdoor education study which I outlined to you in earlier correspondence. It remains my intention to visit a number of programs throughout the province. Hopefully, you will permit your program to be among them.

I have constructed a travel schedule which will bring me to your area on May _____ (see attached calendar). Since I propose to visit thirteen programs and complete data collection before the June rush, it is important that I be able to adhere as completely as possible to my schedule. I therefore hope that the time I am proposing to visit you will not be inconvenient.

During my visits I hope to accomplish the following:

1. meet with some teaching personnel who are involved in outdoor education and enlist their cooperation in filling out a related questionnaire,
2. interview some key personnel at the school level,
3. where central administration has designated system-level outdoor education consulting or supervisory personnel, I would appreciate the opportunity to meet and interview such persons,
4. if time permits and opportunities exist I would like to see some programs in action.

Concerning teacher questionnaire respondents (item 1), I am intending to sample no more than twelve from each school administration. I would prefer four teachers from each of the elementary, junior high and senior high school levels but understand that this will not be possible in many instances. Where large numbers of teachers are involved however, I would like a sample of twelve and where fewer than twelve are involved, as many as possible. In order to minimize travel within a system and facilitate personal delivery and collection of questionnaires, it would be preferable if teachers were drawn from two or three representative schools. Personnel mentioned in item 2 would be drawn from the same schools. (See attached sheet for areas to be investigated in interviews and questionnaires.)

I am aware that what I have requested represents a considerable amount of activity for the allotted time. I have therefore scheduled return visits in instances where I feel thay may be required. I also feel that this will make it possible to personally collect questionnaires thereby increasing chances for a high rate of return.

As a teacher I can appreciate how busy educational personnel are at this time of year. I sincerely hope therefore, that my visit will not represent a large imposition upon your time or that of teachers.

In addition to other enclosed material, I am also enclosing a feedback sheet which I would like you to return at your earliest convenience.

Thank you.

Sincerely,

Don Risdon.

FEEDBACK SHEET

1. I remain willing to be of assistance and will anticipate your arrival on the indicated day. yes _____ no _____.

2. I require further information prior to concluding arrangements for your visit. yes _____ no _____.
   Telephone me at _____ to discuss details.

3. I would like a summary of study findings yes _____ no _____.

4. Comments: _____

_____

_____

_____

Signed: _____

Date: _____

****

Below are the dates during which I will be in your area. If you are able to do so at this time and feel so inclined, I would appreciate your providing me with a rough itinerary for my visit.

May	A.M.	P.M.

(Detach and retain for own records)

Outdoor Education Study: Don Risdon

May	A.M.	P.M.

Appendix F

Letter Reminding Subjects of Outstanding Questionnaires

26 Menlo Crescent,
Sherwood Park, Alberta
T8A 0R9
June 12, 1973.

Dear

While engaged in a study of outdoor education during May and early June, I left in your possession _____ questionnaire(s) for completion by outdoor education teachers on your school's staff. My records indicate that I have not yet had returned _____ of these questionnaires. I am most interested in getting a high rate of questionnaire returns as this will not only improve the quality of my thesis findings, but will facilitate a more comprehensive report to the Department of Education which is partially sponsoring my research. As I hope to begin data analysis almost immediately, I would appreciate your checking into this matter as soon as possible and forwarding any completed instruments to me at your earliest convenience.

I wish to express again my thanks to you for the cooperation and assistance which you have thus far extended me. I sincerely hope that I may, at some future date, have the opportunity to be of similar service to you. Thank you!

Sincerely,